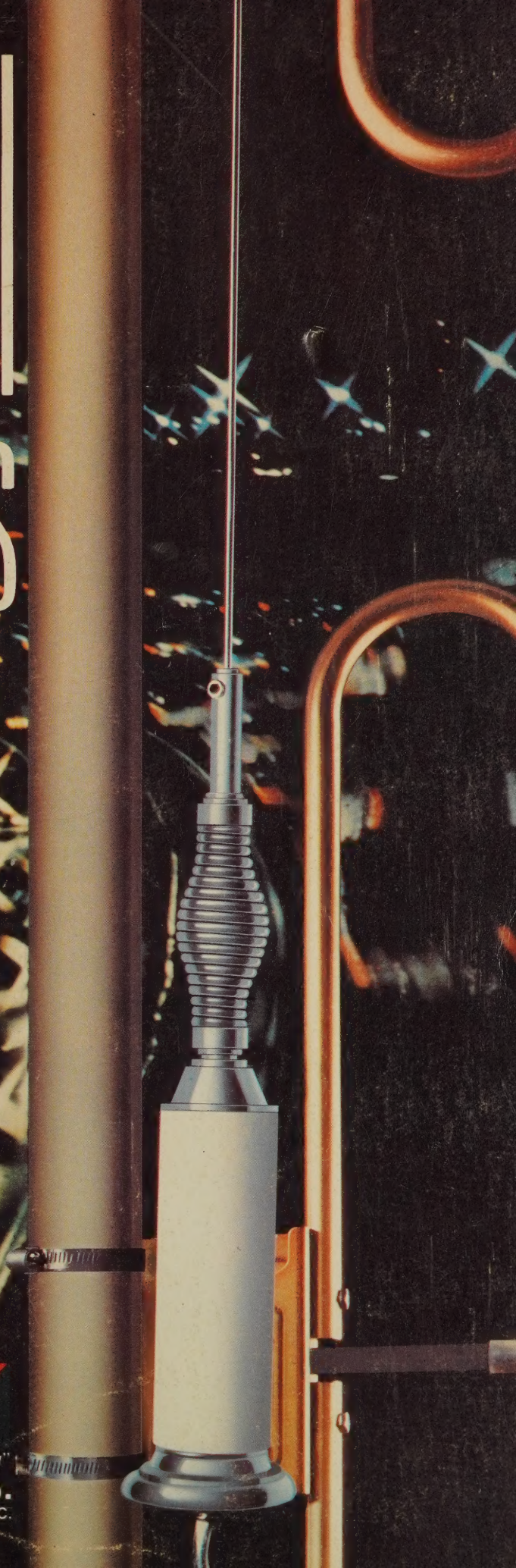


professional antennas



"Stripes of Quality"

the antenna specialists co.
Division of THE ALLEN GROUP INC.



antenna specialists:

the brand that means what it says . . .

Antenna Specialists has in its almost 20 year history supplied all kinds and types of communications antennas to two-way radio users the world over. Now, over 2,500,000 of these antennas bear the Antenna Specialists brand and "Stripes of Quality". Many of these products were real innovations to mobile or fixed station installations. All represented the best in materials and workmanship with the greatest reliability we could build into them. Also, they were marketed at the lowest possible price without sacrificing quality.

It is this type of continued innovation and high quality that the "Antenna Specialists" family devote themselves to. Our commitment to you - our customers - is to continue to make the Red and Black "Stripes of Quality" label the symbol of leadership in the industry. Our products will always be built with this pledge in mind. Our name will symbolize this dedication to supplying to you the finest products for base stations, mobiles and installation accessories.

EIA standards used

E. I. A. Standards are designed to serve the public interest by eliminating misunderstandings between manufacturer and purchaser. This improved method of uniformly presenting data assists the purchaser in selecting proper products for his need and tends to "wash out" "advertising license".

Antenna Specialists supports these E. I. A. Standards namely; E. I. A. RS-329. You will note in this catalog that Antenna Specialists' newer base station products are presented per RS-329. This means that these products were tested in accordance with, and data presented per, the Standard. If the symbol RS-329 is shown, it means if a minimum standard is required Antenna Specialists meets or exceeds it. In some cases additional information may be shown for the sake of competitive clarity.

WARRANTY

All Antenna Specialists Company products are warranted against defective material or workmanship and are subject to repair or replacement if failure results from these factors within 90 days from purchase by the user.

This warranty does not extend to any of our products which have been subject to misuse, neglect, accident, or improper installation or application, nor shall it extend to units which have been repaired or substantially altered outside of our factory.

This warranty is in lieu of all other warranties expressed or implied.



the antenna specialists co.

Division of THE ALLEN GROUP INC. Export offices: 2200 Shames Dr. Westbury, N.Y. 11590
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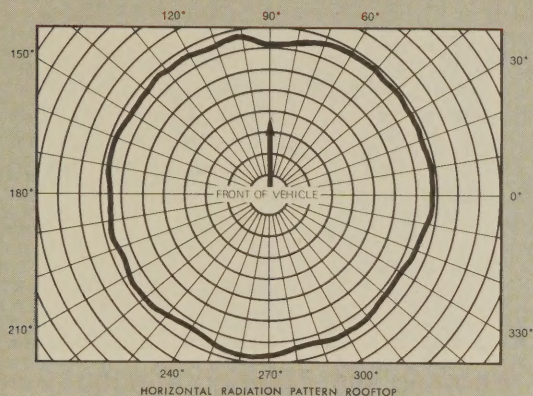
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HEAVY DUTY, HIGH POWER, BASE LOADED VEHICULAR ANTENNA SERIES

Looking ahead of the state-of-the-art, this rugged series of 30-50 MHz mobile antennas features a 200 watt power rating, assuring long, reliable performance under adverse duty cycles. The high conductivity whip reduces losses due to heating which increases effective performance. Interchangeability of antennas for VHF and UHF useage is made possible by the new low loss waterproof mount which will accept the ASP-665, ASP-675, or ASP-695 antennas with no modification or adapters. Just change the radio, and screw on the proper antenna.

The .125" diameter tapered whip, and stiffer spring, effectively extends communications range at high cruising speeds by remaining more nearly vertical.

Coils are shock resistant, weatherproof, shunt-fed and encased in 1-15/64" diameter PVC jackets. Whips are the finest 17-7 PH stainless steel plated for high conductivity. Field-tune to exact operating frequency with whip length chart supplied.

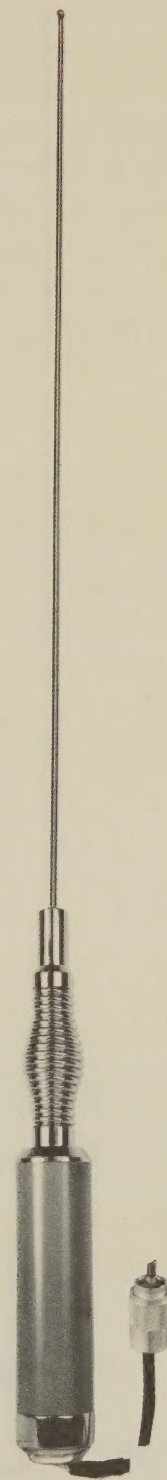
Electrical Specifications

Maximum Power:	200 watts
Frequency Range:	30-33 MHz (ASP-prefix) 33-36 MHz (ASPA-prefix) 36-42 MHz (ASPB-prefix) 42-50 MHz (ASPC-prefix)
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Loading Coil:	DC grounded, shunt-fed, PVC jacket, weather-proof, shock resistant dia.1-15/64" length 4-5/8"
Radiation Pattern:	Essentially omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel, plated, .125 dia. tapered
Spring Material:	Stainless steel
Base and Fittings:	Aluminum and plated steel
Cable:	17 feet, RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	49" maximum at lowest frequency
Antenna Connections:	Solderless

NEW

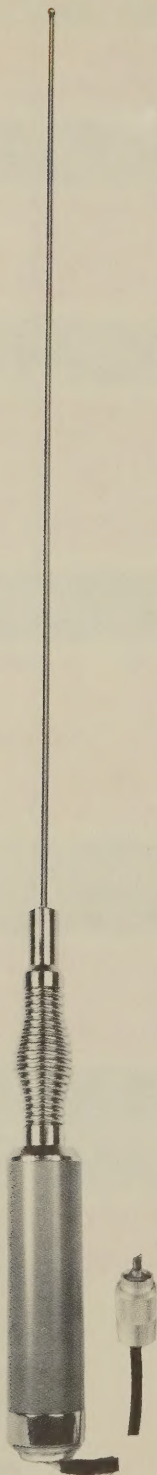


ASP-730

MOBILE ANTENNAS 30-50 MHz

Heavy Duty Base Loaded

NEW

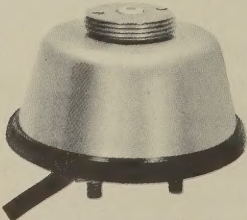


ASP-730

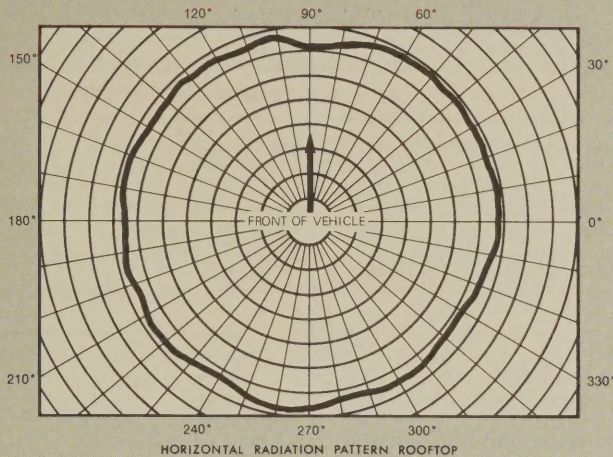
SELECTION GUIDE, ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify by exact model number and addition (if necessary) of the letters A, B, or C to obtain the desired frequency range (See table below).

Model	Mounting and Hardware Configuration
ASP-730	Complete antenna including: A/S low profile waterproof mount for 3/4" hole, 17-7 PH plated stainless whip, 17 ft. RG-58/U cable, PL-259 connector.
ASP-732	Same as ASP-730, but with "Quick-Grip" mount for trunk lip, 17 ft. type RG-58/U cable, PL-259 connector.
ASP-733	Same as ASP-730, but with cowl mount, 17 ft. RG-58/U cable, PL-259 connector.
ASP-735	Same as ASP-730, but for use on existing new Motorola mount. Cable and mount not included.
ASP-738	Same as ASP-730, but with A/S 3/4" hole toggle mount, 17 ft. RG-58/U cable, PL-259 connector.

Frequency	Model No. Prefix			
30-33 MHz	ASP			
33-36 MHz	ASPA			
36-42 MHz	ASPB			
42-50 MHz	ASPC			
A "Quick-Grip" trunk lid mount for "no hole" installation.				
B Mount for 3/4" mounting hole.		B		
				
		ASP-732	ASP-733	
				
		ASP-735	ASP-738	

Models ASP-268, ASP-341, ASP-441, ASP-444, ASP-447, ASP-448, ASP-452, ASP-544, ASP-552, ASP-555



HIGH PERFORMANCE, BASE LOADED VEHICULAR ANTENNA SERIES FOR PROFESSIONAL ENVIRONMENT

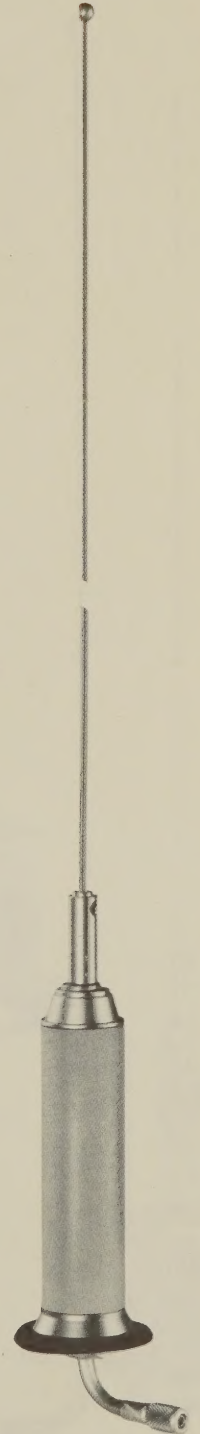
The standard of performance in the industry, this exceptionally versatile series of 25-50 MHz mobile antennas is available in a variety of optional mounting configurations to fit every professional vehicular situation. Coils are shock-resistant, weatherproof, shunt-fed and encased in PVC jackets. Whips are the finest 17-7 PH stainless steel (will bend in a full circle without setting) and feature an adapter which provides 1-1/4" adjustment for fine tuning — after cutting to frequency with the chart provided. All mounting from outside vehicle.

Electrical Specifications

<i>Maximum Power:</i>	Over 100 watts
<i>Frequency Range:</i>	30-36 MHz (ASP-prefix) 36-42 MHz (ASPA-prefix) 42-50 MHz (ASPB-prefix) 25-28 MHz (ASPC-prefix)
<i>VSWR:</i>	Less than 1.5:1
<i>Nominal Impedance:</i>	50 ohms
<i>Loading Coil:</i>	DC grounded, shunt-fed PVC jacket, weatherproof, shock resistant, 1" dia., length 4"
<i>Radiation Pattern:</i>	Essentially omni-directional (when roof mounted)

Mechanical Specifications

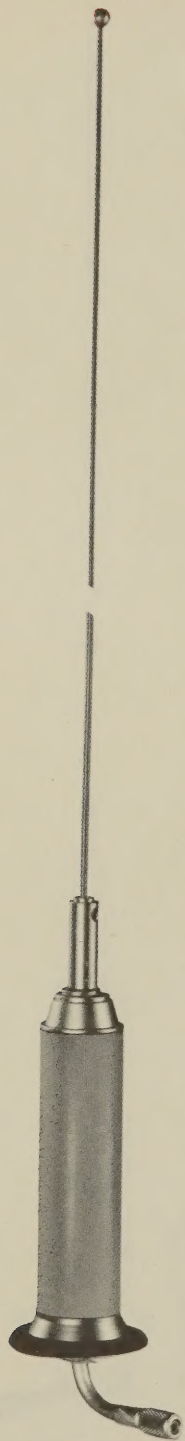
<i>Radiator Material:</i>	17-7 PH stainless steel
<i>Spring Material:</i>	Stainless steel
<i>Base and Fittings:</i>	Chrome plated brass
<i>Cable:</i>	17 feet, RG-58/U where furnished
<i>Connector:</i>	PL-259 where furnished
<i>Whip Length:</i>	49" maximum, with spring; 51-1/2" maximum
<i>Antenna Connections:</i>	Solderless



ASP-268

MOBILE ANTENNAS 25-50 MHz

Base Loaded Flat Surface Mount



ASP-268

SELECTION GUIDE, ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify by exact model number and addition (if necessary) of the letters A, B or C to obtain the desired frequency range (See table below).

Model	Mounting and Hardware Configuration
ASP-268	Complete antenna including: weathertight, chrome plated brass base for 3/4" hole; 17-7 PH stainless whip; 17' RG-58/U cable; PL-259 connector.
ASP-341	Same as ASP-268, but with swivel-type mount for cowl, deck or fender. Allows up to 35° angle. 17' RG-58/U cable, PL-259 connectors at both ends.
ASP-441	Same as ASP-341 but with shock spring.
ASP-444	Same as ASP-268, but includes stainless steel shock spring and ASPS202 adapter for use with existing GE and ASP-201 mounts. No cable or connector furnished.
ASP-447	Same as ASP-268, but with 3/8" snap-in mount.
ASP-448	Same as ASP-268, but with 3/8" snap-in mount and stainless steel shock spring.
ASP-452	Identical to ASP-268, but includes stainless steel shock spring.
ASP-544	Same as ASP-268, but with "Quick-Grip" mount for trunk lip. 17' RG-58/U cable. Cable fully concealed. No holes to drill.
ASP-552	Same as ASP-268, but includes special mount for use with existing new-type <i>Motorola</i> mounts for Motorola models TAD 6111A; TAD 6112A; TAD 6113A; TAD 6114A; TAE 6052A. No cable or connector furnished.
ASP-555	Same as ASP-268, except base is "Grip-Stick" magnetic mount for positive temporary positioning on metal roof or deck. 17' RG-58/U cable, PL-259 connector.

Frequency	Model No. Prefix		
30-36 MHz	ASP		
36-42 MHz	ASPA		
42-50 MHz	ASPB		
25-28 MHz	ASPC		
A Cutaway view of mount for 3/4" mounting hole. B Cutaway view of snap-in mount for 3/8" mounting hole.		A	B
		ASP-341 ASP-441 ASP-444 ASP-447 ASP-448 ASP-452 ASP-544 ASP-552 ASP-555	

HEAVY DUTY RUGGEDIZED ANTENNAS

Model ASP-331

This base loaded antenna with 1-7/8" diameter loading coil is ideally suited for the most rugged vehicular requirements, including cement trucks, commercial and industrial vehicles and other applications where extreme reliability is a must. May be used as a direct replacement for most low band quarterwave antennas on horizontal surfaces. The 200 watt power rating assures continuous operating under all conditions. Whips are the finest 17-7 PH stainless steel and are field tuneable with frequency vs. length chart supplied.

Model ASP-591

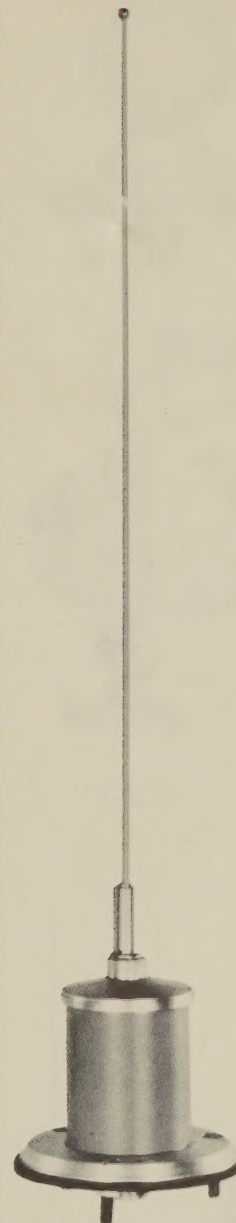
This model offers all the rugged, heavy duty features of the ASP-331 plus a stainless steel shock spring for added flexibility.

Electrical Specifications

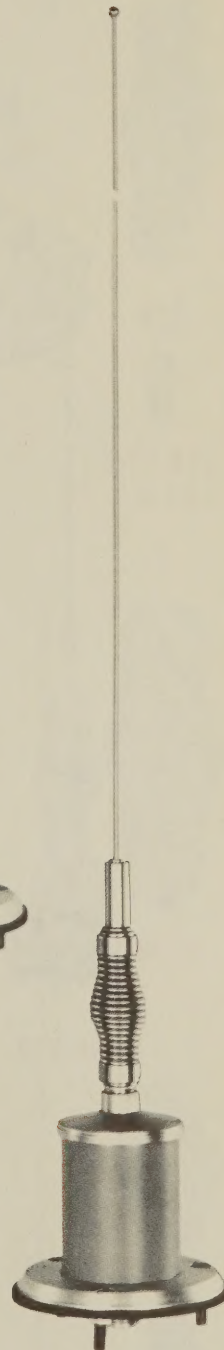
Maximum Power:	200 watts
Frequency Range:	25-28 MHz (ASPA-prefix) 30-33 MHz (ASPB-prefix) 33-36 MHz (ASPC-prefix) 36-42 MHz (ASPD-prefix) 42-50 MHz (ASPE-prefix)
VSWR:	Less than 2.0:1
Nominal Impedance:	50 ohms
Loading Coil:	DC grounded, shunt-fed, PVC jacket, weather-proof, shock resistant, 1-7/8" diameter
Radiation Pattern:	Essentially omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Spring Material:	Stainless Steel
Base and Fittings:	Chrome plated aluminum
Cable:	Not furnished
Connector:	SO-239 (will accept PL-259)
Whip Length:	49" maximum, with spring; 51-1/2" maximum
Antenna Connections:	Solderless



ASP-331



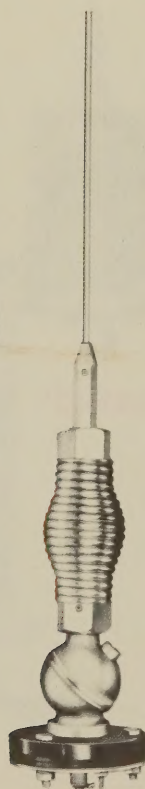
ASP-591



ASP-631



ASP-632



ASP-633

Model ASP-631

STANDARD

LOW BAND QUARTERWAVE ANTENNA

Standard of the mobile communications industry — fully accepted by original equipment manufacturers and professional communicators. Comprised of a standard, industrial grade swivel base; highest quality stainless steel whip with set-screw adapter for ease of field tuning. Includes cadmium plated professional shock spring. Allen wrench included.

Model ASP-632

STAINLESS STEEL

LOW BAND QUARTERWAVE ANTENNA

The utmost in durability and appearance, this stainless steel version has all the attributes of the ASP-631, plus the added feature of fine stainless steel ball and spring components.

Model ASP-633

HEAVY DUTY

LOW BAND QUARTERWAVE ANTENNA

A heavy duty low band quarterwave antenna, suitable for police, fire, and utility communications where long reliable service is a must under rugged conditions. Accepted by original equipment manufacturers, the features include the finest quality stainless steel whip with set-screw adapter, special heavy duty cadmium plated spring, cadmium plated iron ball, and plated hardware. Allen wrench included.

Electrical Specifications

Gain:	Unity
Maximum Power:	250 watts
Frequency Range:	25 to 54 MHz (shipped 108" long unless frequency is specified)
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms

Mechanical Specifications

Cable:	Not furnished
Connector:	Split leads
Mounting Base Dia.:	3-1/2"
Mounting Hole Dia.:	1-5/16" (center)
Other Specifications:	Listed with model

Model ASP-3

STANDARD REPLACEMENT SWIVEL BASE

Standard professional swivel base, precision machined to prevent rattle or loosening. May be used to custom-build low band antenna installations from components or as replacement base for ASP-632, etc.

Model ASP-368

STAINLESS STEEL REPLACEMENT SWIVEL BASE

High quality stainless steel professional swivel base for durability and appearance. May be used as a building block for professional low band installation or as direct replacement base for ASP-632, etc.

Model ASP-3A (Not illustrated)

STANDARD REPLACEMENT SHOCK SPRING

Standard replacement low band shock spring, cadmium plated, installation wrench included; 3/8"-24 thread.

Model ASP-70

STAINLESS STEEL SHOCK SPRING

Replacement stainless steel low band spring, rustproof with replaceable braid. Installation wrench included, 3/8"-24 thread.

Model ASP-526

HEAVY DUTY MOTORCYCLE SPRING

Heavy duty version of standard K-126 shock spring for severe environments such as motorcycles, stainless steel and chrome plated brass, 1/4"-20 thread.

Model K-40

HEAVY DUTY MINI-SPRING

Heavy duty mini-spring for use with center loading coils to reduce shock 3/8"-24 thread, supplied with 3/8"-24 removeable stud.

Model ASP-3BL

REPLACEMENT LOW BAND WHIP

Precision manufactured replacement low band whip of the highest professional standards of workmanship and durability. Accepted by original equipment manufacturers. Fabricated from the finest quality 17-7 PH stainless steel — so resilient that they are guaranteed to resist permanent set damage.

Model ASP-121

DELUXE LOW BAND WHIP

All the fine features of the ASP-3BL plus a durable stainless steel adapter with set screw adjustment.

Model ASP-196

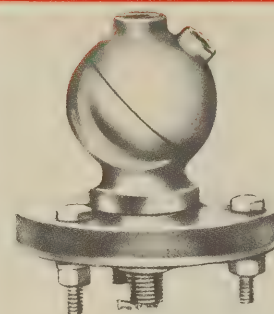
WHIP LENGTH TESTER

Triple chrome plated telescopic whip length tester. Extends to 96" to find the exact whip length necessary prior to cutting permanent stainless steel whip for the 30 to 50 MHz range. Includes stainless steel adapter with 3/8"-24 thread. A must for every installer and service shop.

Model K-115

WHIP HOLD-DOWN CLIP

Gutter mounted whip clip for quick-action hold down of long low band whips during inoperative periods. Attaches to rain gutter with single screw clamp. No holes in vehicle.



ASP-3



ASP-368



ASP-526
K-40



ASP-121



ASP-70

ASP-3BL

ASP-196

K-115

MOBILE ANTENNAS 25-50 MHz

Quarterwave Components



ASP-87

Model ASP-87

LOADING COILS

High quality, precision wound loading coils for base loading of low band mobile antennas. Permits reduction of physical length of antenna without deterioration of electrical characteristics. Pre-tuned, non-adjustable, encased in weatherproof coating. Threaded 3/8"-24 to accept standard whips and screws into standard shock springs.

Chart shows how whip may be shortened with use of these loading coils.

	WHIP LGTH. WITH BASE ONLY	WHIP LGTH. WITH BASE & SPRING	WHIP LGTH. & COIL NO WITH BASE & SPRING	
FREQ. IN MHz	WHIP LGTH. "A"	WHIP LGTH. "A"	WHIP LGTH. "A"	COIL NO
23.9-24.4			96"	ASPC87
24.4-25.1			96"	ASPB87
25.1-26.0			96"	ASPA87
26.0-27.0	108"	102"	96"	ASP-87
27.0-27.7	108"	102"	84"	ASPB87
27.7-28.4	104"	98"	84"	ASPA87
28.4-29.0	102"	96"	80"	ASPB87
29.0-29.5	100"	96"	75"	ASPC87
29.5-30.5	96"	96"	72"	ASPC87
30.5-31.5	96"	84"	69"	ASPC87
31.5-34.0	84"	84"	62"	ASPC87
34.0-36.5	84"	79"	57"	ASPC87
36.5-37.0	79"	79"	54"	ASPC87
37.0-39.0	79"	72"	48"	ASPC87
39.0-40.0	72"	72"	50"	ASPB87
40.0-42.0	72"	68"	48"	ASPB87
42.0-44.0	68"	62"	48"	ASPA87
44.0-45.0	62"	62"	48"	ASP-87
45.0-48.0	62"	57"		
48.0-50.0	57"	57"		

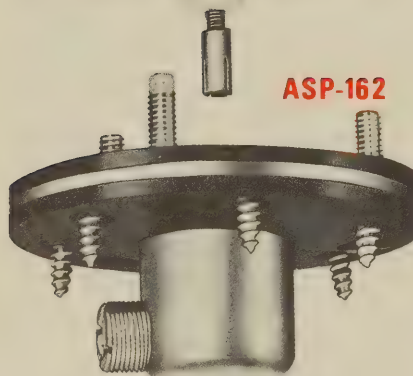


ASP-162

Model ASP-162

RIGHT ANGLE COAX ADAPTER KIT

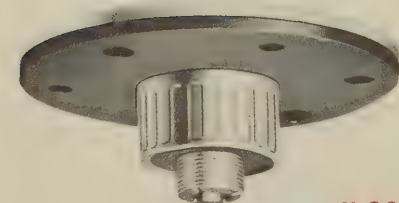
Coaxial adapter kit converts exposed split-lead terminals on ASP low band swivel bases to right angle SO-239 connector. All installation work from outside of body with sheet metal screws supplied.



Model K-36

STRAIGHT COAX ADAPTER KIT

Coaxial adapter kit mounts to underside of low band swivel base, converts split lead connections to straight SO-239 connector.



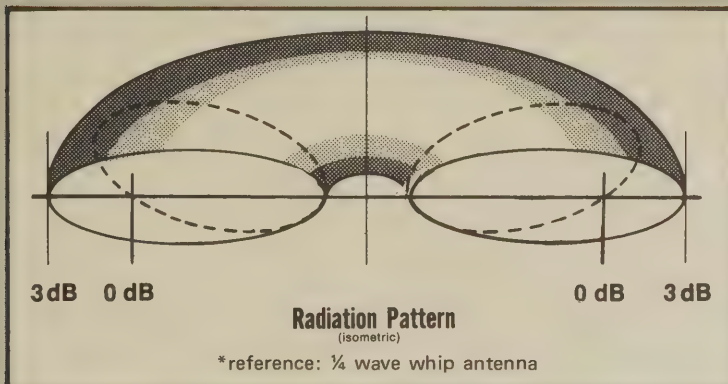
K-36

Model K-199 (Not illustrated)

COAXIAL CABLE ASSEMBLY

Consists of 10 feet of RG-58/U cable with PL-259 connector on one end and split lead with solder lugs on other. Permits connection of radio to low band quarterwave without cutting or soldering.

Models ASPS177, ASPS203, ASPS206, ASP-324, ASP-375, ASP-415, ASP-446, ASP-543, ASP-553, ASP-558



3 dB GAIN HIGH PERFORMANCE VEHICULAR ANTENNA SERIES FOR PROFESSIONAL ENVIRONMENT

Exceptional versatility, outstanding performance and mechanical reliability have made these 3 dB gain vehicular antennas the standard of performance in communications systems for nearly two decades. A broad selection of mounting options offers a solution to virtually every installation problem.

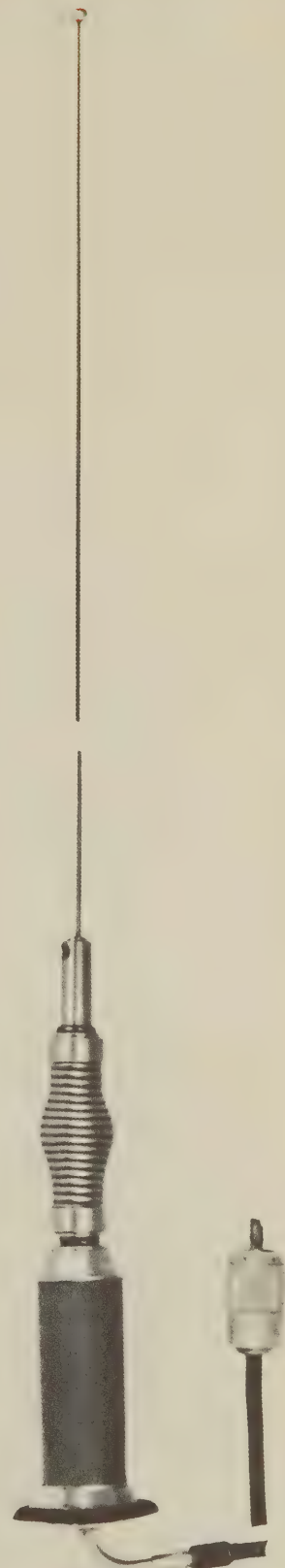
All fittings are chrome plated brass for appearance and long lasting performance. Coils are shock-resistant, weatherproof, shunt-fed and encased in PVC jackets. Whips are the finest 17-7 PH stainless steel (will bend in a full circle without setting) and feature an adapter providing 1-1/4" adjustment for fine tuning after cutting to chart-specified length. All mounting from outside the vehicle.

Electrical Specifications

Gain:	3 dB
Maximum Power:	100 watts
Frequency Range:	130-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Transformer:	DC grounded, shunt-fed, PVC jacket, weatherproof, shock resistant, dia. 1", length 3-1/4"
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Spring Material:	Stainless steel
Base and Fittings:	Chrome plated brass or stainless steel
Cable:	RG-58/U where furnished - length specified under model description
Connector:	PL-259 where furnished
Whip Length:	49" maximum, with spring; 51-1/2" maximum
Antenna Connections:	Solderless



ASPS177

MOBILE ANTENNAS 130-174 MHz

VHF Gain



ASPS177

SELECTION GUIDE

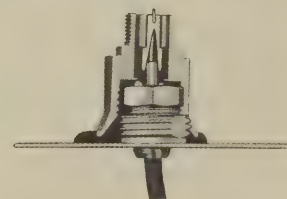
ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features you require under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify model number.

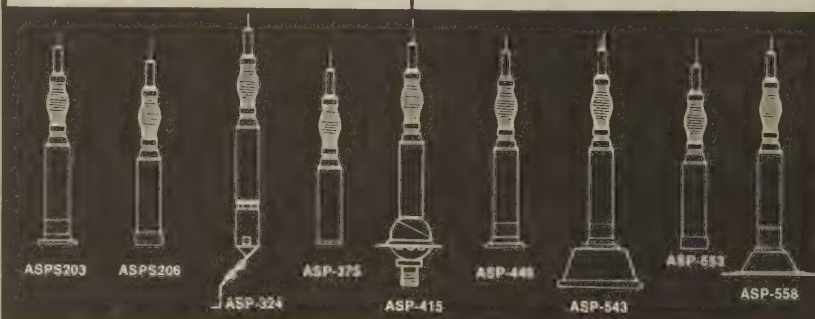
Model	Mounting and Hardware Configuration
ASPS177	Complete antenna, including base, coil and whip. 17' RG-58/U cable, PL-259 connector, mtg. hole dia. 3/4". Stainless steel spring.
ASPS203	Same as ASPS177, but includes ASPS202 adapter for use with existing GE, RCA and ASP-201 type mounts. Lead not included.
ASPS206	Same as ASPS177, but includes ASPS205 adapter for use with existing pre-1968 Motorola mounts. Lead not included. Converts Motorola TU316 or P-9363 to 1/2 wavelength antenna.
ASP-324	Same as ASPS177 except base is a chrome plated steel bracket with stainless hardware for trunk groove mounting. 17' RG-58/U cable, PL-259 connector.
ASP-375	Same as ASPS177 less base assembly, cable. Mounts on either SO-239 connector or Model ASP-332 gutter clamp.
ASP-415	Same as ASPS177 but with swivel-type mount for cowl, deck or fender. Allows up to 35° angle. 17' RG-58/U cable, PL-259 connectors both ends.
ASP-446	Same as ASPS177, but with 3/8" snap-in mount. 17' RG-58/U cable and PL-259 connector.
ASP-543	Same as ASPS177 but with "Quick-Grip" mount for trunk lip, 17' RG-58/U cable. Cable fully concealed. No holes to drill.
ASP-553	Same as ASPS177, but with special K-27 adapter for use with new-type Motorola mount for Motorola models TAD-6111A, TAD-6112A 6113A and 6114A. Lead not included.
ASP-558	Same as ASPS177 except base is "Grip-Stick" magnetic mount for positive temporary positioning on metal roof or deck. 17' RG-58/U cable, PL-259 connector.



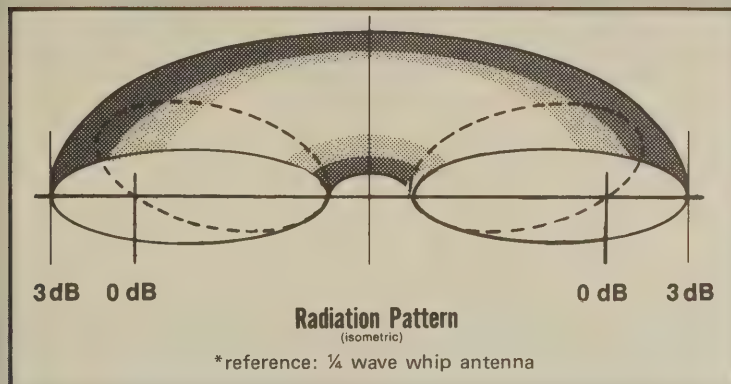
Cutaway view of mount for 3/4" mounting hole.



Cutaway view of snap-in mount for 3/8" mounting hole.



Models ASPS577, ASPS578, ASPS582, ASPS583, ASPS584, ASPS585, ASPS586



HIGH POWER HEAVY DUTY, VEHICULAR ANTENNA SERIES FOR CONTINUOUS DUTY CYCLE TRANSMITTERS

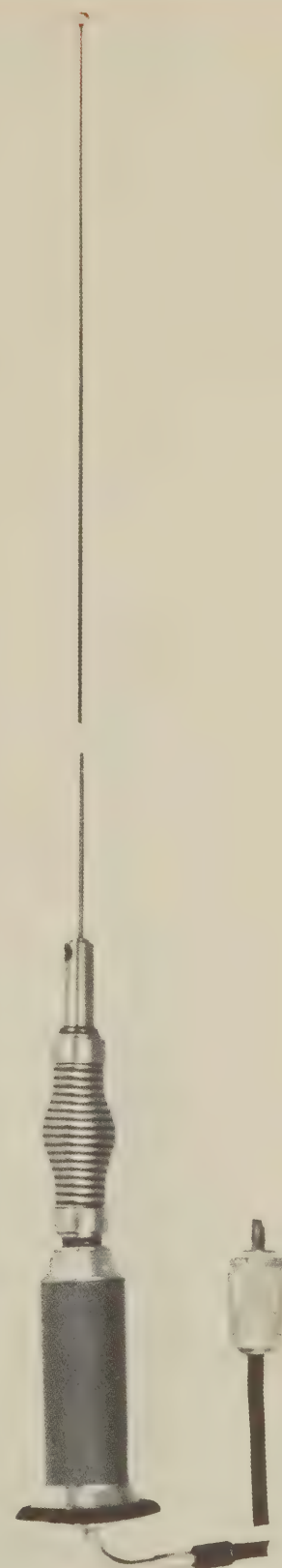
A ruggedized version of the popular ASPS177 family of vehicular gain antennas, these models feature a special plated whip for increased efficiency and reliability at extreme power levels and high duty cycles. Reduced heating of antenna allows more signal to be radiated. Whip are the finest 17-7 PH stainless steel, copper-nickel plated. Coils are shock-resistant, weatherproof, shunt-fed and encased in PVC jackets. Whip adapter allows 1-1/4" of whip adjustment for fine tuning after cutting to frequency with the chart provided.

Electrical Specifications

Gain:	3 dB
Maximum Power:	150 watts
Frequency Range:	130-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Transformer:	DC grounded, shunt-fed, PVC jacket, weather-proof, shock resistant dia. 1", length 3-1/2"
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

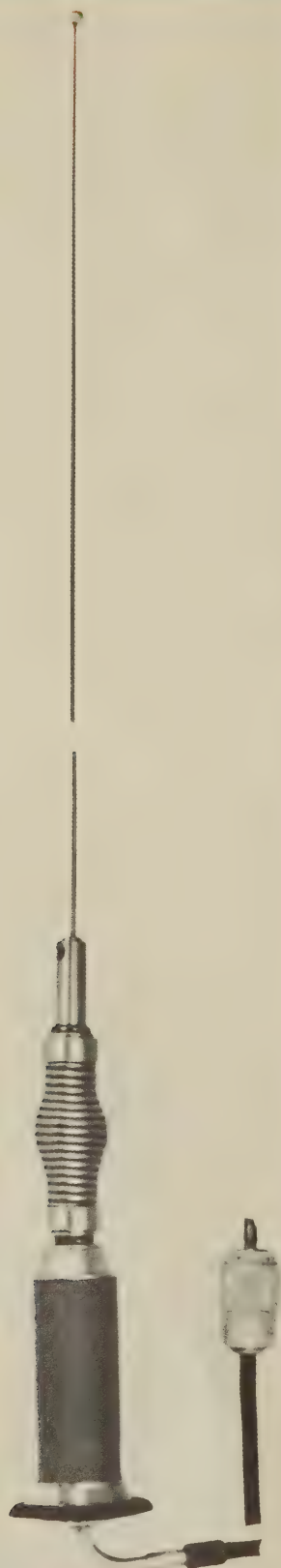
Radiator Material:	17-7 PH stainless steel, plated for high conductivity
Spring Material:	Stainless steel
Base and Fittings:	Chrome plated brass or stainless steel
Cable:	RG- 58/U where furnished PL-259 where furnished
Connector:	
Whip Length:	49" maximum, with spring; 51-1/2" maximum
Antenna Connections:	Solderless



ASPS577

MOBILE ANTENNAS 130-174 MHz

VHF Gain Plated Whip

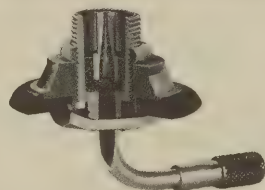


ASPS577

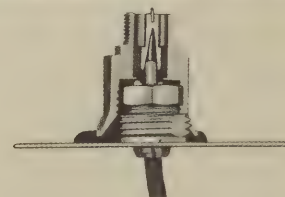
SELECTION GUIDE ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features you require under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify model number.

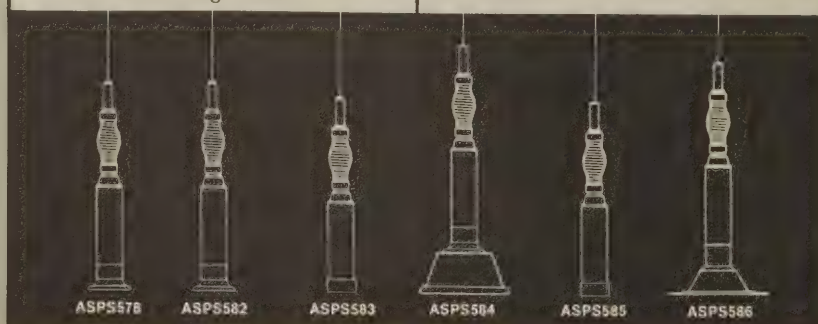
Model	Mounting And Hardware Configuration
ASPS577	Complete antenna including base, coil and special plated stainless steel whip. Mounting hole dia. 3/4", 17' RG-58/U cable, PL-259 connector. Stainless steel spring.
ASPS578	Same as ASPS577, but with 3/8" snap-in mount, 17' RG-58/U cable, PL-259 connector furnished.
ASPS582	Same as ASPS577, but includes ASPS202 adapter for use with existing GE, RCA and ASP-201 type mounts. Lead not included.
ASPS583	Same as ASPS577, but includes ASPS205 adapter for use with existing pre-1968 Motorola mounts. Lead not included.
ASPS584	Same as ASPS577, but mounted on trunk lid mount, no holes. 17' RG-58/U cable, PL-259 connector included.
ASPS585	Same as ASPS577, but with special K-27 adapter for use with new-type Motorola mount, for Motorola Models TAD611A, 6112A and 6114A. Lead not included.
ASPS586	Same as ASPS577, but with magnetic mount. 17' RG-58/U cable, PL-259 connector included; will hold on any flat metal surface up to 80 mph.



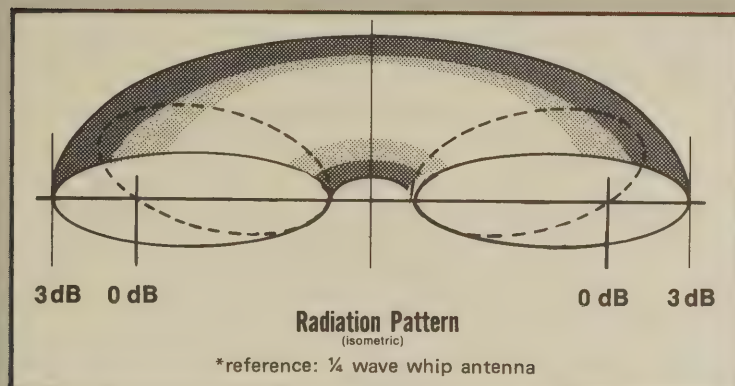
Cutaway view of mount for 3/4" mounting hole.



Cutaway view of snap-in mount for 3/8" mounting hole.



Model ASP-598



3 dB GAIN RUGGEDIZED VEHICULAR ANTENNA FOR SPECIAL MOUNTING APPLICATIONS

Ideally suited for the most rugged vehicular requirements, this antenna will easily withstand vibration from cement trucks and diesel-powered vehicles. Large mounting base assures solid mechanical connection in even the most rugged environment. The 1-7/8" diameter transformer will handle with ease the near-continuous duty cycle of the heavy-fisted operator. Finest quality 17-7 PH stainless steel whip will bend in a full circle without permanent set damage. Shock spring for maximum protection of antenna whip.

Electrical Specifications

Gain:	3 dB
Maximum Power:	200 watts
Frequency Range:	130-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Transformer:	DC grounded, shunt-fed, PVC jacket, weather-proof, shock resistant, dia. 1-7/8"
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Spring Material:	Stainless steel
Base and Fittings:	Chrome plated aluminum
Cable:	Not furnished
Connector:	SO-239 (accepts PL-259)
Whip Length:	49" maximum
Antenna Connections:	Solderless

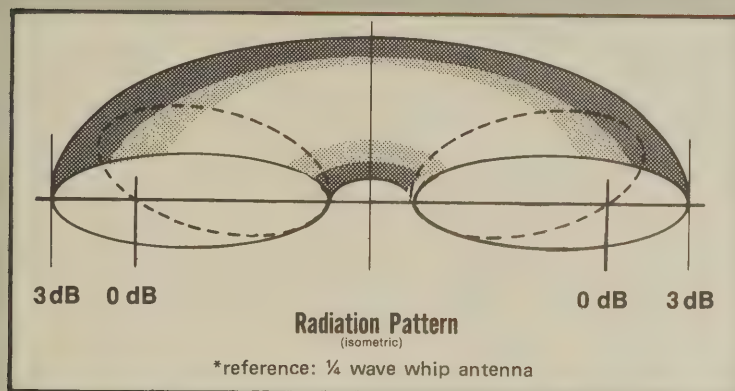


ASP-598

**THIS SPACE RESERVED
FOR
FUTURE MODELS**



Models ASP-670, ASP-672, ASP-673, ASP-674, ASP-675, ASP-676, ASP-677



3 dB GAIN HIGH PERFORMANCE VEHICULAR ANTENNA SERIES

Featuring a 5/8 wavelength special plated whip, the attractive appearance of these models is in keeping with new vehicular styling. The spring and whip may be removed leaving only a 1-3/16" high waterproof coil for car wash clearance and when roof top mounted, even the coil may be removed without fear of water seepage.

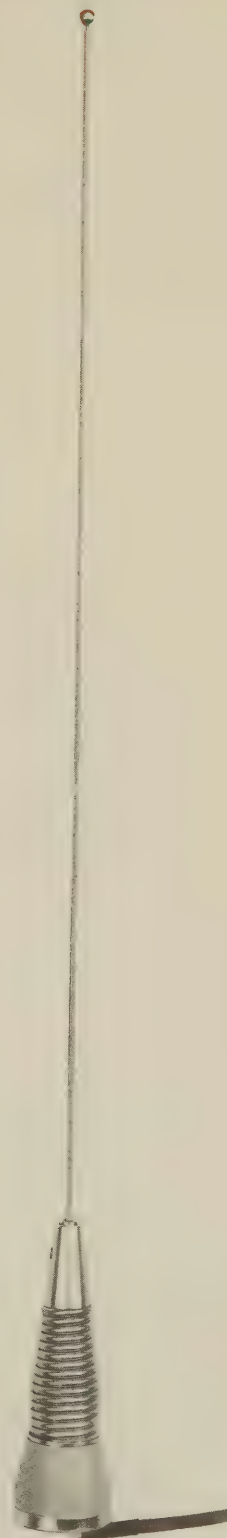
Coils are low loss, shock resistant, directly fed underground configuration and encased in weatherproof plastic base. Whips are the finest 17-7 PH stainless steel, copper-nickel plated for maximum efficiency. Flat surface mounts are Teflon insulated, aluminum and plated steel.

Electrical Specifications

Gain:	3 dB
Maximum Power:	100 watts
Frequency Range:	144-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Transformer:	16 AWG copper wire, low loss coil, waterproof cover
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel, plated for high conductivity
Spring Material:	Stainless steel
Base and Fittings:	Molded plastic, silver plated contacts
Cable:	17 feet RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	49" maximum, 54" maximum including spring and base



ASP-670

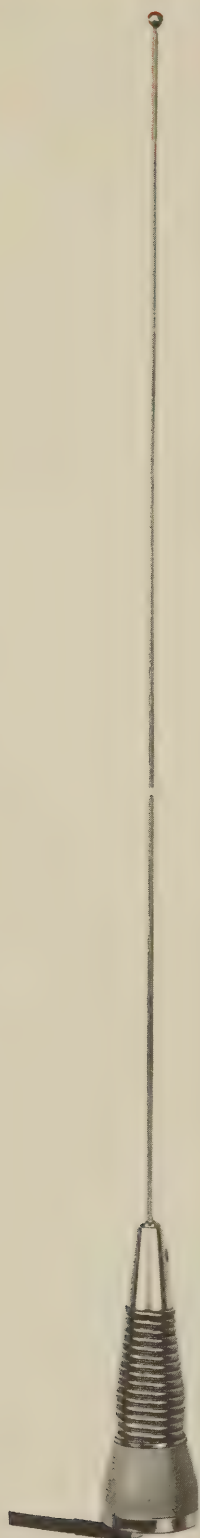
MOBILE ANTENNAS 144-174 MHz

VHF Gain-Low Profile Mount

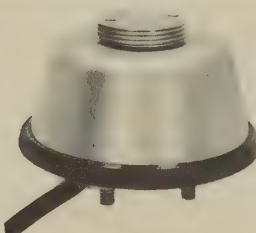
SELECTION GUIDE, ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features you require under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify model number.

Model	Mounting and Hardware Configuration
ASP-670	Complete antenna including: weathertight base for 3/4" hole, stainless steel spring, 17-7 PH stainless whip special plated, 17' RG-58/U cable, PL-259 connector.
ASP-672	Same as ASP-670 but with trunk mount base ("Quick-Grip") 17' RG-58/U cable. PL-259 connector.
ASP-673	Same as ASP-670 but with cowl mount, 17' RG-58/U cable, PL-259 connector.
ASP-674	Same as ASP-670 except base is magnetic mount for easy temporary positioning on metal roof or deck. 17' RG-58/U cable, PL-259 connector.
ASP-675	Same as ASP-670 but for use on existing new Motorola mount. Cable and mount not included.
ASP-676	Same as ASP-670 but for use on existing GE, RCA, and ASP-201 mounts. Cable and mount not included.
ASP-677	Same as ASP-670 but with 3/8" snap-in mount, 17' RG-58/U cable and PL-259 connector.



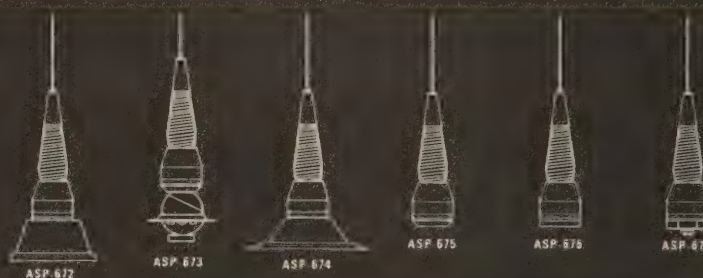
ASP-670



"Quick-Grip" trunk lid mount for "no holes" installation.



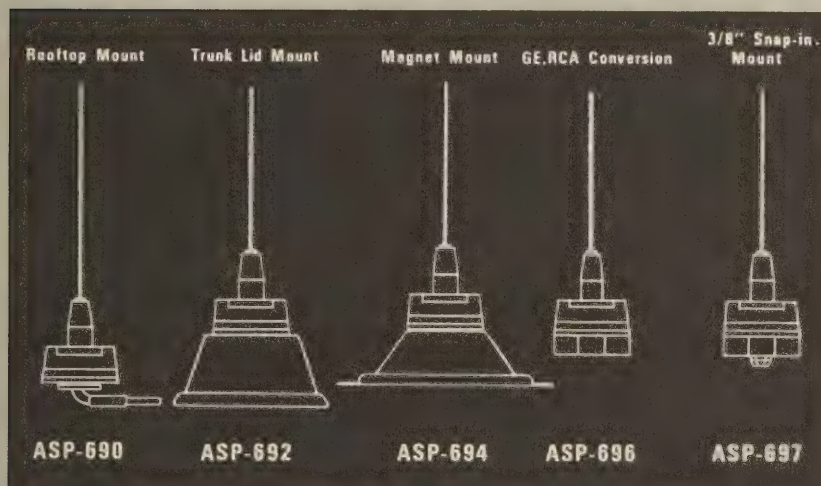
Mount for 3/4" mounting hole.



Models ASP-690, ASP-692, ASP-694, ASP-695, ASP-696, ASP-697

HIGH QUALITY LOW PROFILE MOUNT VEHICULAR QUARTERWAVE ANTENNA

High quality, low profile mount quarterwave unity gain antenna. Rooftop mounted version may be removed for carwash clearance without fear of water seepage through mount. Ideally suited as "building block" for future addition of ASP-675 to same mount for conversion to gain antenna.



Electrical Specifications

Gain:	Unity
Maximum Power:	Over 100 watts
Frequency Range:	108-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Cable:	17 ft. RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	26 1/4" at lowest frequency



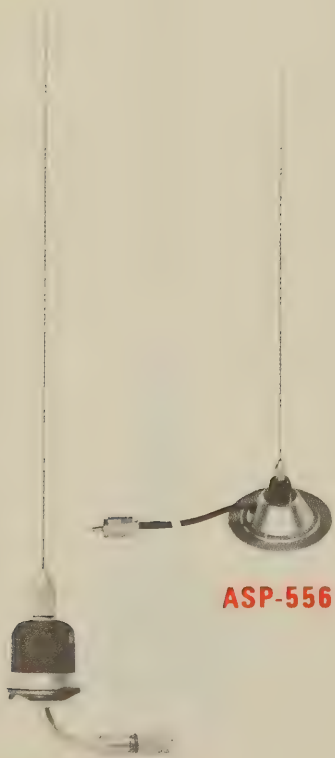
ASP-695
Motorola Conversion



ASPC201L



ASP-541



ASPR1

Model ASPC201L

SNAP-IN MOUNT QUARTERWAVE ANTENNA

Patented snap in feature provides quick, permanent installation in a 3/8" hole. High quality, unity gain, OEM accepted. Solderless cable connection at antenna make these antennas the easiest to install. Whip has set screw adapter for ease of field tuning. Furnished with 17 feet of RG-58/U cable with connector attached.

Electrical Specifications

Gain: Unity
Maximum Power: Over 100 watts
Frequency Range: 108-174 MHz
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms
Radiation Pattern: Omni-directional
(when roof mounted)

Mechanical Specifications

Radiator: Type 302 stainless steel
Material: steel
Cable: 17 ft. RG-58/U where furnished
Connector: PL-259 where furnished
Whip Length: 26-1/4" at lowest frequency
Antenna Connections: Solderless

Model ASPC201 (Not illustrated)

Same as ASPC201L except without cable and connector.

Model ASP-201 (Not illustrated)

Same as ASPC201 except with press-on-type whip adapter.

Model ASP-201L (Not illustrated)

Same as ASP-201 except furnished with 17 feet of RG-58/U cable and PL-259 connector.

Model ASP-541

TRUNK LID MOUNTED QUARTERWAVE

High quality ASPC201 on a "Quick-Grip" no hole trunk lid mount. Installs quickly and easily on lip of trunk lid with two small set screws. Specifications same as ASPC201 except furnished with 17 feet of RG-58/U cable and PL-259 connector.

Model ASPR1

RUGGED MOUNT QUARTERWAVE ANTENNA

The exceptionally rugged ASPR1 mounts in a 3/4" hole and has a toggle type mounting plate with positive 4 point grounding. Special gasket assures watertight mounting. 1/4 wavelength design provides unity gain. Includes right angle cable support to prevent cable shorts. Solderless cable connection at antenna. Cable and connector not furnished.

Model ASPR1L (Not illustrated)

Same as ASPR1 except furnished with 17 feet of RG-58/U cable and PL-259 connector.

Model ASP-556

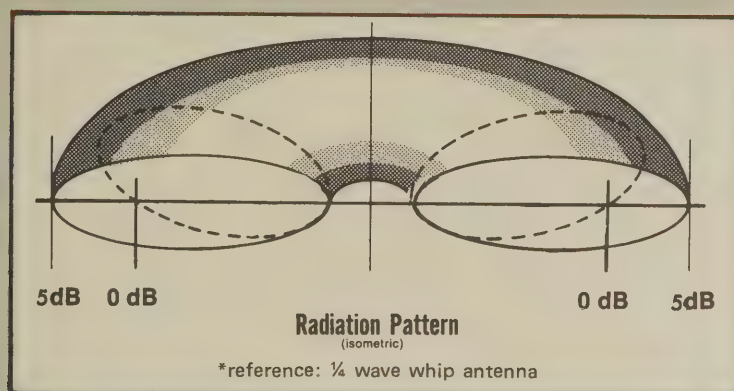
MAGNET MOUNT QUARTERWAVE ANTENNA

The model ASPR1L on the "Grip-Stick" magnet mount antenna for "no-hole-no-clamp" installation. Just set it on the vehicle (center of roof, trunk lid or any flat surface). Under side of base has protective covering for scratch-proof mounting. Ideal for use when radio is required in a vehicle on a temporary basis. Will stay on at legal speed limits. Specifications identical to ASPR1L, except has 12 foot cable and PL-259 connector.

Model ASPR556 (Not illustrated)

Same as ASP-556 except furnished with 10 feet of RG-174/U cable and micro-plug connector for hand held portable units.

Model ASP-660, ASP-662, ASP-663, ASP-664, ASP-665, ASP-666, ASP-667



5 dB GAIN HIGH PERFORMANCE COLLINEAR VEHICULAR ANTENNA SERIES

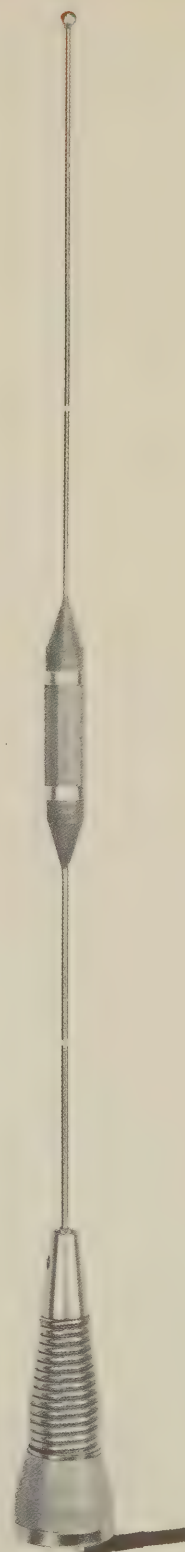
Unexcelled mobile performance with the hottest UHF vehicular antenna available. Two precisely phased 5/8 wavelength collinear radiators provide 5 dB of omni-directional gain - at the horizon - where it is needed. The low profile water proof base encloses a low loss air wound coil. Whip and phasing coil assembly is one-piece molded design that defies vibration and moisture problems. Spring and whip may be removed for carwash clearance without fear of water seepage. Unique design assures consistent performance under the most rugged conditions. Available in four frequency ranges to cover 406-420 MHz and 450-512 MHz.

Electrical Specifications

Gain:	5 dB
Maximum Power:	100 watts @ 104°F ambient cable temperature
Frequency Range:	406-420 MHz (ASPA-prefix) 450-470 MHz (ASP-prefix) 470-494 MHz (ASPB-prefix) 494-512 MHz (ASPC-prefix)
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Base Coil:	16 AWG copper wire, waterproof cover
Phasing Coil:	14 AWG copper wire, encapsulated with radiators
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Spring Material:	Stainless steel
Base and Fittings:	Molded plastic, silver plated contacts
Cable:	17 ft. RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	34" including spring and coil



ASP-660

MOBILE ANTENNAS 406-512 MHz

UHF Gain Low Profile Mount

SELECTION GUIDE,

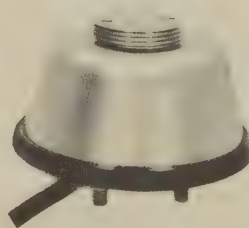
ANTENNA AND MOUNTING OPTIONS

For simplified selection of the exact model and options you require, refer to the chart below. First, select the combination of features you require under "Mounting and Hardware" (Also see drawings below to check configuration). Then specify model number.

Model	Mounting And Hardware Configuration
ASP-660	Complete antenna including: weathertight base for 3/4" hole, stainless steel spring, 17-7 PH stainless whips, 17' RG-58/U cable, PL-259 connector.
ASP-662	Same as ASP-660 but with trunk mount base ("Quick-Grip"). 17' RG-58/U cable, PL-259 connector.
ASP-663	Same as ASP-660 except with cowl mount, 17' RG-58/U cable, PL-259 connector.
ASP-664	Same as ASP-660 except base is magnetic mount for easy temporary positioning on metal roof or deck. 17' RG-58/U cable, PL-259 connector.
ASP-665	Same as ASP-660 but for use on existing new Motorola mount. Cable and mount not included.
ASP-666	Same as ASP-660 but for use on existing GE, RCA, and ASP-201 mounts. Cable and mount not included.
ASP-667	Same as ASP-660 but with 3/8" snap-in mount, 17' RG-58/U cable and PL-259.



ASP-660



"Quick-Grip" trunk lid mount for "no holes" installation.



Mount for 3/4" mounting hole.



ASP-662



ASP-663



ASP-664



ASP-665



ASP-666

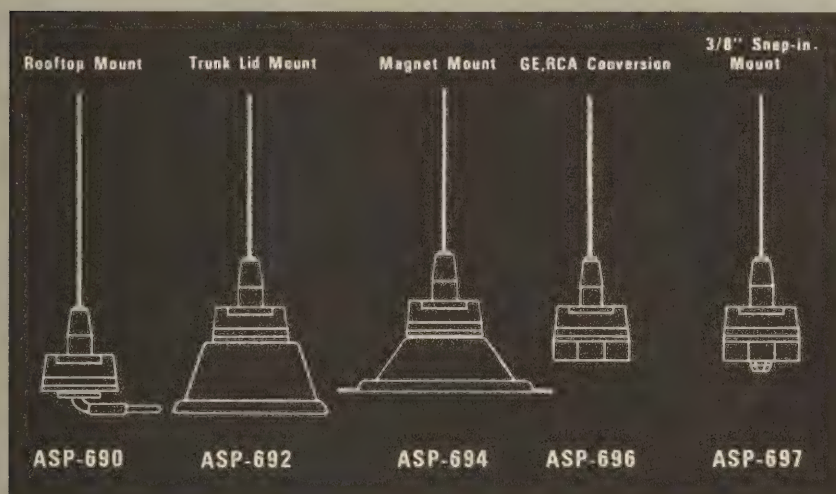


ASP-667

Models ASP-690, ASP-692, ASP-694, ASP-695, ASP-696, ASP-697

HIGH QUALITY LOW PROFILE MOUNT VEHICULAR QUARTERWAVE ANTENNA

High quality, low profile mount quarterwave unity gain antenna. Roof-top mounted version may be removed for carwash clearance without fear of water seepage through mount. Ideally suited as "building block" for future addition of ASP-665 to same mount for conversion to gain antenna.



Electrical Specifications

Gain:	Unity
Maximum Power:	100 watts @ 104°F ambient cable temperature
Frequency Range:	406-512 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Base and Fittings:	Molded plastic, silver plated contacts
Cable:	RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	26-1/4" at lowest frequency



ASP-695
Motorola Conversion



ASPC201L



ASP-541

Model ASPC201L

SNAP-IN MOUNT QUARTERWAVE ANTENNA

Patented snap in feature provides quick, permanent installation in a 3/8" hole. High quality, unity gain, OEM accepted. Solderless cable connection at antenna make these antennas the easiest to install. Whip has set screw adapter for ease of field tuning. Furnished with 17 ft. of RG-58/U cable with connector attached.

Electrical Specifications

Gain:	Unity
Maximum Power:	100 watts @ 104°F ambient cable temperature
Frequency Range:	406-512 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Radiation Pattern:	Omni-directional (when roof mounted)

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Cable:	17 ft. RG-58/U where furnished
Connector:	PL-259 where furnished
Whip Length:	26 1/4" at lowest frequency
Antenna Connections:	Solderless

Model ASPC201 (Not illustrated)

Same as ASPC201L except without cable and connector.

Model ASP-201 (Not illustrated)

Same as ASPC201 except with press-on-type whip adapter.

Model ASP-201L (Not illustrated)

Same as ASP-201 except furnished with 17 ft. of RG-58/U cable and PL-259 connector.

Model ASP-541

TRUNK LID MOUNTED QUARTERWAVE

High quality ASPC201 on a "Quick-Grip" no hole trunk lid mount. Installs quickly and easily on lip of trunk lid with two small set screws. Specifications same as ASPC201 except furnished with 17 ft. of RG-58/U cable and PL-259.

Model ASPR1

RUGGED MOUNT QUARTERWAVE ANTENNA

The exceptionally rugged ASPR1 mounts in a 3/4" hole and has a toggle type mounting plate with positive 4 point grounding. Special gasket assures watertight mounting. 1/4 wavelength design provides unity gain. Includes right angle cable support to prevent cable shorts. Solderless cable connection at antenna. Cable and connector not furnished.

Model ASPR1L (Not illustrated)

Same as ASPR1 except furnished with 17 ft. of RG-58/U cable and PL-259 connector.

Model ASP-556

MAGNET MOUNT QUARTERWAVE ANTENNA

The model ASPR1L on the "Grip-Stick" magnet mount antenna for "no-hole-no-clamp" installation. Just set it on the vehicle (center of roof, trunk lid or any flat surface). Under side of base has protective covering for scratch-proof mounting. Ideal for use when radio is required in a vehicle on a temporary basis. Will stay on at legal speed limits. Specifications identical to ASPR1L, except has 12 foot cable and PL-259 connector.

Model ASPR556 (Not illustrated)

Same as ASP-556 except furnished with 10 feet of RG-174/U cable and micro-plug connector for hand held portable units.

ASPR1

ASP-556

Model ASP-593 (25-50 MHz)

High power disguise antenna features 40" step ground stainless steel whip for maximum durability and performance. May be used as replacement for telescopic broadcast antenna with simultaneous two-way and entertainment radio useage with ASP-618 coupler. Whip is replaceable, stub loaded cable with 17 feet RG-58/U cable furnished. Specify frequency when ordering.

Electrical Specifications

Maximum Power: 100 watts
Frequency Range: 25-50 MHz (specify frequency)
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, step-ground
Base and Fittings: Swivel mount, adjustable to 35°, 7/8" to 15/16" hole mount
Connector: PL-259
Whip Length: 40"
Antenna Connections: Solderless

Model ASPH85 (39-50 MHz)

Flexible, tapered stainless steel whip on cowl mount. Full quarter wavelength affords unity gain antenna in disguise configuration. Use ASP-618 coupler for simultaneous broadcast and two way operation. Replaceable whip may be clipped to gutter during inoperative periods. Cable not furnished. Specify frequency when ordering.

Electrical Specifications

Gain: Unity
Maximum Power: Over 100 watts
Frequency Range: 39-50 MHz (specify frequency)
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, taper ground
Base and Fittings: Swivel mount, adjustable to 35°, 7/8" to 15/16" hole mount
Cable: Not furnished
Whip Length: Quarter wavelength at specified frequency
Antenna Connections: SO-239 (accepts PL-259)

Model ASP-145 (25-50 MHz)

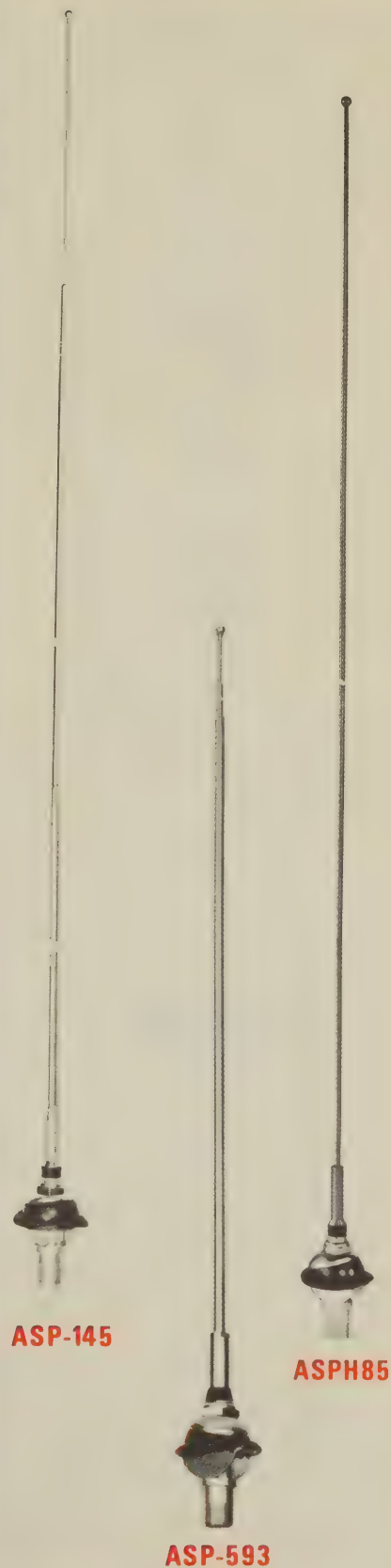
Total disguised operation with 59" step ground whip to exactly simulate broadcast antenna. Swivel base cowl mount permits mounting on any surface with maximum slant of 35°. Shorted stub loaded, furnished with 17 feet of type 58/U cable. Specify frequency when ordering. (Can not be used with broadcast radio coupler.)

Electrical Specifications

Maximum Power: 30 watts
Frequency Range: 25-50 MHz (specify)
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, step ground
Base and Fittings: Swivel mount, adjustable to 35°, 7/8" to 15/16" hole mount
Cable: 17 feet, RG-58/U with stub loading
Connector: PL-259
Whip Length: 59"
Antenna Connections: Solderless

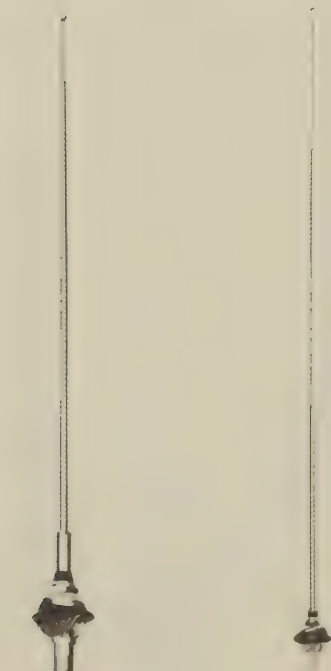


SPECIAL PURPOSE ANTENNAS 130-174 MHz

VHF Disguise

NEW

ASP-748



ASPG80

ASP-146

Model ASP-748

2.5 dB GAIN DISGUISE ANTENNA

Featuring a 5/8 wavelength step ground stainless steel whip, this antenna provides exceptional performance with the exact appearance of a conventional broadcast receiving antenna. The plated whip reduces power losses to deliver more signal. When used with ASP-619 coupler, this antenna will provide simultaneous use of both two-way and broadcast radios. Stub tuning allows 2.5 MHz bandwidth for multiple channel use. Swivel base may be mounted on surface with up to 35° slant. Specify frequency when ordering.

Electrical Specifications

Gain: 2.5 dB
Maximum Power: 100 watts
Frequency Range: 144-174 MHz
(specify frequency)
VSWR: Less than 1.5:1
Bandwidth: 2.5 MHz
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, copper and nickel, chrome plated, step ground
Base and Fittings: Swivel base adjustable to 35°, 7/8" to 15/16" hole mount
Cable: 17 ft. RG-58/U, RG-8/U stub PL-259
Whip Length: 5/8 wavelength at operating frequency
Antenna Connections: Solderless

Model ASPG80

Quarterwave disguise antenna with step ground stainless steel rod. Has appearance of collapsed broadcast receiving antenna - 19" long. Swivel base permits mounting in 7/8" to 15/16" dia. hole on surface with up to 35° slant. Standard stock frequency range 152-159 MHz. Specify frequency if outside this range. Cable not furnished.

Model ASP-624 (Not illustrated)

Same as ASPG80 except with straight-sided stainless steel shock spring. Specify frequency when ordering if other than 152-159 MHz.

Model ASP-621 (Not illustrated)

Same as ASP-624 except less mount. Conversion antenna for existing Ward mount.

Electrical Specifications

Maximum Power: 100 watts
Frequency Range: 130-174 MHz
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, step ground
Base and Fittings: Swivel mount, adjustable to 35°, 7/8" to 15/16" hole mount
Cable: Not furnished
Whip Length: Approximate 19" (depending on frequency)
Antenna Connections: SO-239

Model ASP-146

3/4 wavelength antenna with step ground stainless steel rod appears to be a standard broadcast receiving antenna. Simplified one hole mount with swivel base providing vertical positioning of antenna even on slanted surfaces up to 35°. Replaceable 59" whip. Furnished with 17 feet RG-58/U cable and PL-259 connector. Cutting chart supplied for tuning to operating frequency.

Model ASPR80

Same as ASP-146 except furnished without cable.

Electrical Specifications

Maximum Power: 100 watts
Frequency Range: 144-174 MHz
VSWR: Less than 1.5:1
Nominal Impedance: 50 ohms

Mechanical Specifications

Radiator Material: 17-7 PH stainless steel, step ground
Base and Fittings: Swivel mount, adjustable to 35°, 7/8" to 15/16" hole mount
Cable: 17 ft. RG-58/U where furnished
Connector: PL-259 where furnished
Whip Length: 59" at lowest frequency
Antenna Connections: Solderless



Models ASP-564, ASPA564, ASPB564, ASPC564

DISGUISED MOBILE ANTENNA

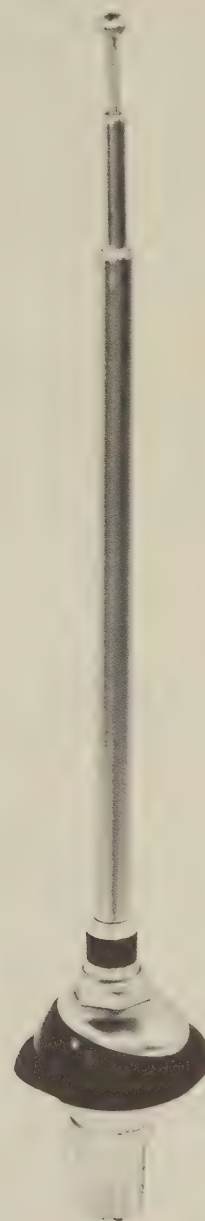
An inconspicuous antenna with step-ground stainless steel whip, has the appearance of ordinary telescopic broadcast antenna. Quarter wavelength design provides broadband operation, while swivel base permits mounting on surfaces from horizontal to 35° slope. Standard model covers entire 450-470 MHz band with new models available for government and TV sharing frequencies. This is an ideal antenna for detective and command cars. Cable not furnished.

Electrical Specifications

Maximum Power:	100 watts
Frequency Range:	406-420 MHz (ASPA564) 450-470 MHz (ASP-564) 470-494 MHz (ASPB564) 494-512 MHz (ASPC564)
VSWR:	Less than 1.5:1
Bandwidth:	Over 20 MHz
Nominal Impedance:	50 ohms

Mechanical Specifications

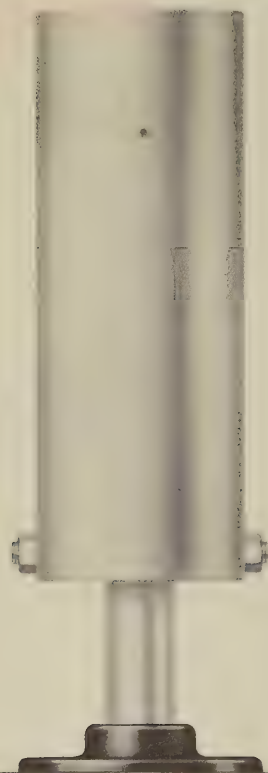
Radiator Material:	17-7 PH stainless steel, step ground
Base and Fittings:	Swivel mount, adjustable to 35°, 7/8" to 1 5/16" hole mount
Cable:	Not furnished
Whip Length:	Quarter wavelength at specified band (approximately 6")
Connector:	SO-239 (accepts PL-259)
Antenna Connections:	Solderless



ASP-564

SPECIAL PURPOSE ANTENNAS 158-162 MHz

Railroad Antennas



ASP-16

Model ASP-16

RAILROAD ANTENNA

Manufactured under IT & T patents, this rugged railroad antenna mounts on either caboose or locomotive. Consists of concentric inner and outer cylinders only 11 3/8" high overall. 50 ohms input impedance with SO-239 connector on mounting foot. Radiating cylinders are silver plated brass, painted to protect the plating. Meets AAR requirements. Ready to install.

Model ASP-455

RAILROAD ANTENNA

Same as ASP-16 except mounted on Crouse-Hinds condulet box. Overall height same as ASP-16.

Electrical Specifications

Maximum Power:	100 watts
Frequency Range:	158-162 MHz
VSWR:	Less than 1.5:1
Bandwidth:	4 MHz
Nominal Impedance:	50 ohms

Mechanical Specifications

Radiator Material:	Silver plated brass
Cable:	Not furnished
Connector:	SO-239 (accepts PL-259)
Height:	11-3/8"
Color:	Gray painted finish



ASP-455

SPECIAL PURPOSE ANTENNAS 25-50 MHz

Low Band Motorcycle Mount

**Models ASP-594, ASPA594,
ASPB594, ASPC594,
ASPD594**

MOTORCYCLE ANTENNA WITH FIBER GLASS WHIP

Exceptionally rugged low band motorcycle antenna. Designed to withstand the terrific vibration created by a motorcycle. Five models cover the entire low band spectrum. Special International Orange fiber glass whip, field tuneable to exact frequency. Solderless weather-tight mounting. Includes 4 feet of RG-58/U cable and PL-259 connector. ASP-526 spring is included between whip and coil for added flexibility.

**Models ASP-720, ASPA720,
ASPB720, ASPC720,
ASPD720**

Attractive white fiber glass motorcycle antenna. Whip and spring are integral assembly for maximum reliability under severe vibration conditions. Special motorcycle loading coils assure optimum performance. Rugged weatherproof mount requires a small 3/8" hole. Includes 4 feet of cable with PL-259 connector.

**Models ASP-721, ASPA721,
ASPB721, ASPC721,
ASPD721**

Same as ASP-720 series except whip is International Orange. (Not illustrated)

Electrical Specifications

Maximum Power:	100 watts
Frequency Range:	25-29 MHz (ASP-prefix) 30-33 MHz (ASPA-prefix) 33-36 MHz (ASPB-prefix) 36-42 MHz (ASPC-prefix) 42-50 MHz (ASPD-prefix)
Nominal Impedance:	50 ohms
Loading Coil:	DC grounded, shunt fed, dia. 1", length 4", PVC jacket, waterproof, shock resistant

Mechanical Specifications

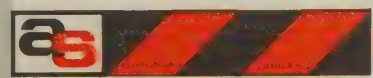
Radiator Material:	Fiber glass wrapped 17-7 PH stainless steel
Spring Material:	Stainless steel
Base and Fittings:	Special 3/8" motorcycle mount, stainless steel and chrome plated brass
Cable:	4 ft. RG-58/U
Connector:	PL-259
Length:	Approximate 48" at lowest frequency in each range
Antenna Connections:	Solderless

NEW



ASP-594

ASP-720



SPECIAL PURPOSE ANTENNAS 144-174 MHz

VHF Motorcycle Mount

NEW

Model ASP-596

The same exceptional performance of the ASPS177 VHF gain antenna with ruggedized features to withstand the terrific vibration and abuse of motorcycle environments. Special International Orange fiber glass whip and heavy duty ASP-526 shock spring. Rugged weatherproof mount requires a small 3/8" hole for mounting. Supplied with 4 feet of RG-58/U cable and PL-259 connector.

Model ASP-723

White fiber glass gain motorcycle antenna with integral whip and spring for maximum reliability under the severe vibration encountered with motorcycle operation. Fiber glass wrapped whip dampens vibrations which lead to early failure of conventional whips. Special motorcycle mount provides rugged weatherproof installation with only a 3/8" hole. Furnished with 4 feet of RG-58/U cable with PL-259 connector.

Model ASP-724 (Not illustrated)

Same as ASP-723 except whip is International Orange.

Electrical Specifications

Gain:	3 dB
Maximum Power:	100 watts
Frequency Range:	144-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Loading Coil:	DC grounded, shunt fed, PVC jacket- weatherproof, shock resistant dia. 1", length 3 1/2"

Mechanical Specifications

Radiator Material:	Fiber glass wrapped stainless steel whip
Spring Material:	Stainless steel
Base and Fittings:	Special 3/8" motorcycle mount, stain- less steel and chrome plated brass
Cable:	4 ft. RG-58/U
Connector:	PL-259
Length:	Approximate 48" at lowest frequency
Antenna Connections:	Solderless

ASP-596

ASP-723



Model ASP-242

Unity gain bumper mounted quarterwave antenna. Ideal for installation on fiber glass bodied vehicles where no metallic ground plane surface is present. Adjustable chrome plated coaxial skirt and stainless steel whip and field tuned to desired frequency with chart provided. Complete with double chain-type bumper mount and 20 feet of RG-58/U cable with PL-259 connector.

Model ASP-357

Similar to ASP-242 except terminates in 3/8"-24 thread for mounting directly to swivel-ball or bumper mounts. (Not illustrated)

Electrical Specifications

Gain:	Unity
Maximum Power:	Over 100 watts
Frequency Range:	120-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Skirt Material:	Chrome plated brass
Mount:	Double chain bumper mount, if furnished
Cable:	20 feet RG-58/U
Connector:	PL-259
Overall Length:	Approximate 5 ft., depending on frequency

Model ASPS200

3 dB gain bumper mounted coaxial antenna. Adjustable coaxial skirt provides artificial ground making this antenna ideal for fiber glass bodied vehicles. Basic antenna has all the fine features of the ASPS177 including 17-7 PH stainless steel whip and weatherproof transformer. Tuning chart provided. Complete with double chain-type bumper mount and 20 feet of RG-58/U cable with PL-259 connector.

Model ASP-358

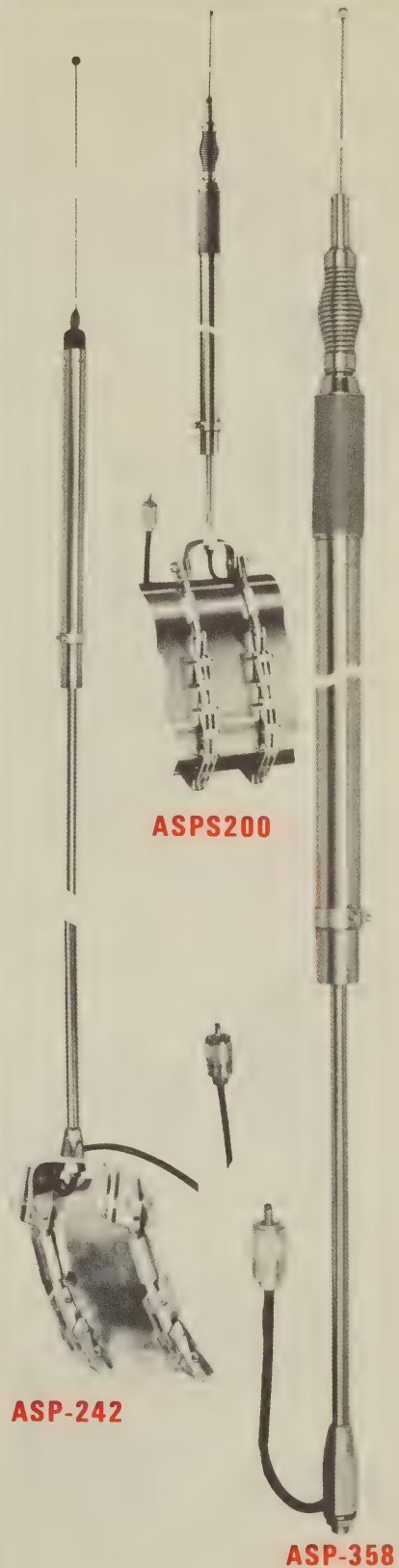
Similar to ASPS200 except terminates in 3/8"-24 thread for mounting directly to swivel ball or bumper mounts.

Electrical Specifications

Gain:	3 dB
Maximum Power:	100 watts
Frequency Range:	130-174 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Loading Coil:	Shunt fed, DC grounded, PVC jacket - weather-proof, shock resistant

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Spring Material:	Stainless steel
Mount:	Double chain bumper mount, if furnished
Cable:	20 feet RG-58/U
Connector:	PL-259
Overall Length:	Approximate 7 feet, depending on frequency



SPECIAL PURPOSE ANTENNAS 25-512 MHz

Gutter Mounts



ASP-185



ASP-157



ASP-332



ASPR332

NEW

Model ASP-185 (27-54 MHz) LOW BAND GUTTER CLAMP ANTENNA

Easily clips on rain gutter of automobile. Ideal for temporary installations. Heavy spring assures positive grip - can't shake off regardless of road conditions. Clamp is heavily plated to resist corrosion. Vinyl covered loading coil is wound into rod, reducing height to 40". Furnished with 10' of RG-58/U cable and PL-259 connector. Specify frequency when ordering.

Electrical Specifications

Antenna Power Rating:	Over 100 watts
Frequency Range:	27-54 MHz (specify exact frequency)
VSWR:	Less than 1.5:1
Nominal Input Impedance:	50 ohms
Radiation Pattern:	Directional toward side of car opposite antenna

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Type Mount:	Heavy duty gutter mount
Cable:	10 feet RG-58/U
Connector:	PL-259
Length:	Approximately 40" (depends on frequency)
Loading Coil:	Vinyl covered, integral with whip

Model ASP-157 (108-512 MHz) VHF/UHF GUTTER CLAMP ANTENNA

For temporary mobile mounting. Antenna clips onto rain gutter of any car and can be removed just as quickly and easily without damage to car. Furnished with 10 feet of RG-58/U cable and PL-259 connector. May be ordered factory tuned to your exact frequency if desired. Chart furnished for field tuning.

Model ASPR157 (108-512 MHz)

Same as ASP-157 except with 10 feet of RG-174/U mini-cable and micro-plug to fit many hand-held portables. (Not illustrated)

Electrical Specifications

Maximum Power:	100 watts
Frequency Range:	108-512 MHz
VSWR:	Less than 1.5:1
Nominal Impedance:	50 ohms
Radiation Pattern:	Directional toward side of car opposite antenna

Mechanical Specifications

Radiator Material:	Type 302 stainless steel
Base:	Cadmium plated steel
Cable:	10 feet RG-58/U (ASP-157) or RG-174/U (ASPR157)
Connector:	PL-259 (ASP-157) or micro-phone plug (ASPR157)
Whip Length:	24 1/2" at lowest frequency

Model ASP-332 GUTTER MOUNT

Gutter clamp with SO-239 connector. Accommodates any antenna that will mount on an SO-239 (such as ASP-375) for temporary mobile applications.

Model ASPR332 GUTTER MOUNT

Same as ASP-332 except with new low profile mount to accept ASP-665, ASP-675, ASP-695, or ASP-735 antennas.

Models ASPB574, ASPC574

RUGGED LOW SILHOUETTE VEHICULAR ANTENNA

This low-profile special-environment communications antenna was evolved from the latest aircraft antenna technology to bring unprecedented reliability and mechanical strength to the professional vehicular field.

Designed especially for railroad, bus, police or fire department applications, the "Linebacker" not only will deliver excellent performance but resist damage or removal where maintenance of communications is critical.

It may be mounted either in vertical or horizontal position. Mounted horizontally, as on a bus roof, maximum radiation is vertical and also omnidirectional. Field tuneable.

Electrical Specifications

Gain:	Approaches unity
Maximum Power:	100 watts
Frequency Range:	148-160 MHz (ASPB574) 160-174 MHz (ASPC574)
VSWR:	less than 1.5 :1
Nominal Impedance:	50 ohms
Radiation Pattern:	Omnidirectional when roof mounted

Mechanical Specifications

Radiator Material:	Silver plated copper
Radome Material:	High impact molded plastic
Cable:	Not furnished
Connector:	SO-239
Height:	4-5/64"
Length:	16-7/8"

NEW



**ASPB574
ASPC574**



SPECIAL PURPOSE ANTENNAS 406-512 MHz

UHF Low Silhouette

Models ASP-572, ASPA572, ASPB572, ASPC572

RUGGED LOW SILHOUETTE VEHICULAR ANTENNA

This new, low-profile special environment communications antenna was evolved from the latest aircraft antenna technology to bring unprecedented reliability and mechanical strength to the professional vehicular field.

Designed especially for railroad, bus, police or fire department applications, the "Linebacker" not only will deliver excellent performance but resist damage or removal where maintenance of communication is critical.

It may be mounted either in vertical or horizontal position. Mounted horizontally, as on a bus roof, maximum radiation is vertically polarized and also omnidirectional.



ASP-572

Model ASP-572L (450-470 MHz)

Same as ASP-572 except furnished with 20 feet of RG-58/U cable and PL-259 connector. (Not illustrated)

Electrical Specifications (Mobile)

Gain:	Unity
Maximum Power:	100 watts
Frequency Range:	450-470 MHz (ASP-572) 406-420 MHz (ASPA572) 470-488 MHz (ASPB572) 488-512 MHz (ASPC572)
VSWR:	Less than 1.5:1
Bandwidth:	Over 20 MHz
Nominal Impedance:	50 ohms
Radiation Pattern:	Omni-directional when roof mounted

Mechanical Specifications

Radiator Material:	Silver plated brass
Radome Material:	High impact molded plastic
Cable:	20 feet RG-58/U (with ASP-572L only)
Connector:	SO-239 on all except ASP-572L which has PL-259
Height:	3-3/8"
Length:	8"

Model ASP-572 series also available with white plastic radome on special order - 100 piece minimum.



Models P-4, P-6, P-7, and P-12 Series

RUGGED DURABLE ANTENNA FOR PORTABLE AND WALKIE TALKIE

A continuously loaded VHF Communication Antenna designed for portable and walkie-talkie applications. This antenna will withstand rough handling which destroys telescopic. Can be bent at different angles without destroying its effectiveness. Completely insulated and cannot accidentally be shorted out. Available in four mounting styles to fit most portables.

Furnished in the following frequency ranges:

127-134 MHz	PH4			
134-141 MHz	PJ4			
141-148 MHz	PK4			
148-155 MHz	PA4	PA6	PA7	PA12
155-164 MHz	PB4	PB6	PB7	PB12
164-174 MHz	PC4	PC6	PC7	PC12
406-420 MHz	PE4	PE6		PE12
450-470 MHz	PD4	PD6		PD12
470-488 MHz	PF4	PF6		PF12
488-512 MHz	PG4	PG6		PG12

Electrical Specifications

Maximum Power: 25 watts
 Frequency Range: 127-512 MHz (see above)
 Nominal Impedance: Depends on ground plane of portable, approximately 50 ohms

Mechanical Specifications

Radiator Material: .050 dia. plated music wire
 Length: Approximately 7" depending on frequency range
 Type Mount: 5/16"-32 male stud (P-4 series) Most Motorola
 1/4"-32 male stud (P-6 series) Most GE
 5/16"-32 male stud (for REPCO portables - older models) (P-7 series)
 PL-259 (P-12 series)

Model P-17

Four section stainless steel telescopic assembly, 5-3/4" collapsed and 18.30" extended length. Furnished without base ferrule or top cap. Direct replacement for Motorola HT-200 series and E.F. Johnson portables.

Model P-18

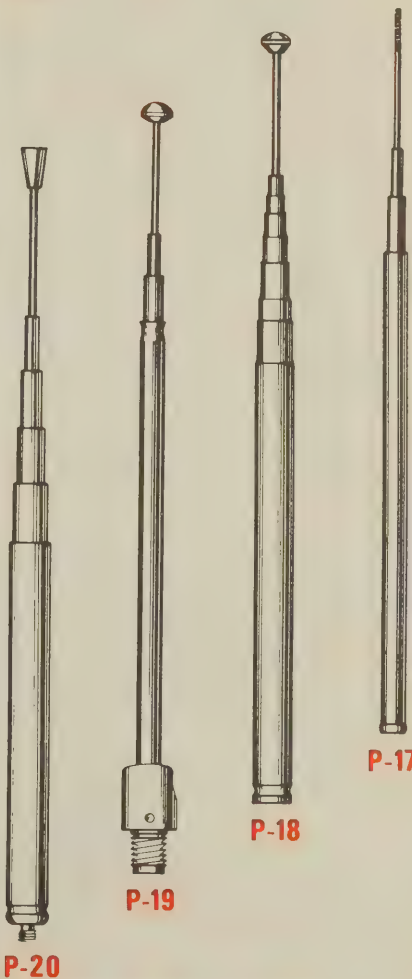
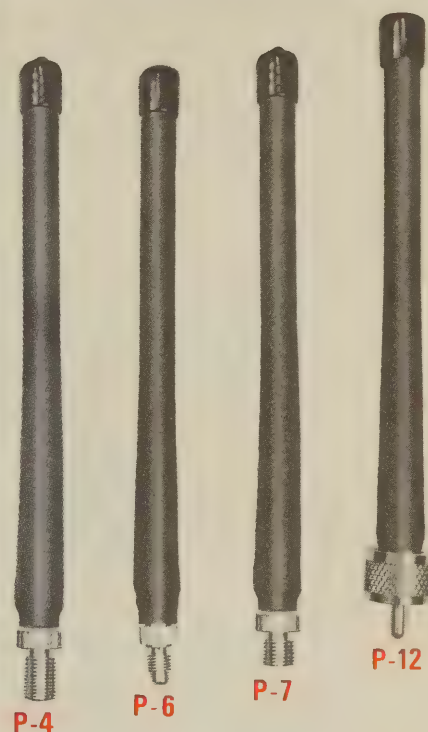
This stainless steel antenna is 5" collapsed and 19-7/8" extended. Base plug is tapped to accept a #6-32 NC screw and is used on some G. E. portables.

Model P-19

Chrome plate brass telescopic antenna is 5-45/64" collapsed and 18-21/32" extended. It has a swivel base with a 3/8-32 NEF threaded stud for mounting on Motorola FM Selective Call receiver.

Model P-20

A chrome plated brass telescopic antenna which is 7-7/8" collapsed and 40-1/4" long extended. Furnished with #8-32 threaded base stud. Used on E. F. Johnson Personal Messenger.



SPECIAL PURPOSE ANTENNAS 25-512 MHz

Portable and Hand Held



ASP-239



ASP-63



ASPA10

Model ASP-63

VINYL COVERED ANTENNA FOR PORTABLES

For portable transmitters and receivers. Vinyl covered loading coil wound into antenna rod reduces overall length with no loss in electrical performance, strength, or flexibility. Approximately 40" high. Complete with PL-259 connector. Specify frequency when ordering.

Electrical Specifications

Antenna Power Rating:	Over 100 watts
Frequency Range:	27-54 MHz (specify exact frequency)
VSWR:	Less than 1.5:1
Nominal Input Impedance:	50 ohms
Loading Coil:	Vinyl covered, wound into rod

Mechanical Specifications

Radiator Material:	Type 302 stainless
Connector:	PL-259, mounts directly on female SO-239 receptacle
Length:	Approximately 40", depending on frequency

Model ASP-239 (25-54 MHz)

HIGH PERFORMANCE ANTENNA FOR PORTABLES

Portable antenna for mounting directly on transceivers. Incorporates base coil, with PL-259 connector, and covers frequency range from 25-54 MHz with seven models. Includes 43" stainless steel whip. Extremely efficient for short range communications. Original equipment acceptance. Maximum power: 3 watts. Specify model which covers your frequency. Coil is field tuneable to exact frequency.

Electrical Specifications

Antenna Power Rating:	3 watts
Frequency Range:	ASP-239 (25-29 MHz) ASPA239 (29-33 MHz) ASPB239 (33-37 MHz) ASPC239 (37-42 MHz) ASPD239 (42-47 MHz) ASPE239 (47-50 MHz) ASPF239 (50-54 MHz)
VSWR:	Less than 1.5:1
Nominal Input Impedance:	50 ohms

Mechanical Specifications

Radiator Material:	17-7 PH stainless steel
Length:	Approximately 45"
Antenna Connections:	Solderless by mounting design
Loading Coil:	Base mtd. and field tuneable

Model ASPA10 (108-512 MHz)

VHF/UHF QUARTERWAVE FOR PORTABLES

Quarterwave antenna for portable transmitters and receivers. Flexible vinyl covered rod .046" diameter, with open eye tip. Complete with PL-259 connector. Specify frequency.

Electrical Specifications

Frequency Range:	108-512 MHz (specify exact frequency)
VSWR:	Less than 1.5:1
Nominal Input Impedance:	50 ohms

Mechanical Specifications

Radiator Material:	Flexible vinyl covered rod .046" diameter stainless steel
Connector:	PL-259
Length:	Quarterwave, dependent on frequency

SYSTEM IMPROVEMENT THROUGH A/S GAIN ANTENNAS

Gain is one of the most important characteristics of a two-way antenna, assuming, of course, that the antenna mechanically gives reliability and durability to maintain the designed gain. Gain is a figure of merit which directly influences your range of operation. Expressed in dB over a reference, it is important to know that this reference is the same for each antenna being compared. Antenna Specialists references many of its base station antennas to a half-wave dipole which is the standard EIA reference in RS-329. Some manufacturers make reference to an isotropic antenna which is 2.14 dB lower in gain than the EIA standard so the higher gain figure must be reduced by 2.14 when comparing to an A/S antenna measured in accordance with EIA RS-329.

By going to an A/S gain antenna, the two-way radio user can obtain the greatest benefit of increased range for the least cost. There are five factors in your communication system where additional investment can improve your range. A 3 dB gain factor has the effect of doubling your Effective Radiated Power (ERP). Using this basis for comparison, the choices for improving your system performance are listed with the change required to gain 3 dB improvement in your system.

1. Double your effective transmitter output power (i.e., from 25 to 50 watts).
2. Increase your receiver sensitivity (i.e., from 1 to about 0.7 microvolts).
3. Double your antenna height (i.e., from 50 to 100 feet).
4. Change base station antenna to gain 3 dB (i.e., from ground plane to ASP-680 with 3 dB omni gain).
5. Change all mobile antennas to gain 3 dB (i.e., from 1/4 wave whip to ASP177).

To improve your system, the least expensive first step is to change mobile antennas to get the maximum ERP of your mobile transmitter. The antenna also improves the receive capabilities of the mobile.

The next least expensive procedure for improving an existing system or planning a new system is to choose the best A/S gain base antenna to fit the coverage needs. Omni-directional gain can be accomplished with less cost than increasing tower height since not only the cost of the tower and materials plus installation costs and hazards must be considered but also the loss in the transmission cable increases with the distance between antenna and transmitter. Here, the additional variable of directivity in the choice of an A/S antenna can provide the exact pattern to cover the desired area of operation around the base station.

Another advantage that antenna directivity provides is in receive capabilities. If, for instance, the antenna system and coverage requirements are planned to look away from areas of high ambient noise levels, the pattern dissemination provides considerable improvement in signal-to-noise and increases effective range.

RECEIVER SENSITIVITY AND SELECTIVITY

Sensitivity is the characteristic of a two-way radio receiver which determines the minimum input signal strength required for a given audio output requirement. Selectivity is that characteristic which determines the ability of a radio receiver to reject undesired signals. Both of these functions are vital in permitting the receiver to eliminate adjacent channel interference, to reduce noise level and help to do away with intermodulation, so that you will receive the desired signal "loud and clear".

The ambient noise level must be considered with receiver sensitivity since electrical noise generated by natural and/or man-made phenomena, if on the same operating frequency, is picked up as an electrical signal. Therefore, additional investment to improve receiver sensitivity below the ambient noise level of the area for that frequency would be wasted. There are methods of reducing mobile engine and man-made noise that should be evaluated in determining the most economical system to accomplish the desired coverage.

TRANSMITTER POWER

The input power - and the resultant output power - cannot exceed the power limitation as set by the FCC in relation to the class of service the station is licensed. Costs of increasing power is another limiting factor in accomplishing the range requirement. As a rule of thumb, doubling the transmitter power adds 3 dB and should be compared to the cost of other methods of obtaining gain.

BASE STATION ANTENNA SECTION

General Information

TECHNICAL DATA: GUYING BASE STATION ANTENNA STRUCTURES

A base station antenna system to withstand winds and weather, must have a supporting structure that is capable of supporting the loads and resisting the weather to which it will be subjected. Since weather conditions vary from area to area, individual consideration must be given to each installation.

If a tower is used, follow the tower manufacturer's instructions carefully. Be cautious that the proximity of the guy lines do not interfere with the antenna radiation pattern. Attach guy wires only to the mast or tower, not to the antenna.

The most critical and complicated job of guying must be done when using a beam-type of antenna. These types weigh the most and are more likely to be affected electrically by the presence of guy lines in the radiation pattern, particularly if the beam is vertically polarized.

Since tower manufacturers usually have very specific guying instructions, we will devote our attention here to an installation on a "mast" or pipe.

In some cases it may be necessary to make an installation requiring a long mast; for instance, if the antenna is not mounted on the highest part of a building. First, be sure the mast has heavy enough wall and is of sufficient diameter, do not use the popular TV mast which is very thin walled. Use material of great enough O.D. and strength for rigidity and minimum deflection. There is no sure-fire way to indicate in words where to place the guy lines for the infinite number of various installations that can be made. In any case, a reasonably stable structure must be the result.

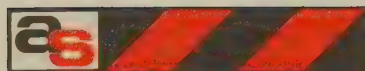
"Guy-rings" for attaching guy lines to various sizes of pipe are available from most Electronic Parts Suppliers. These rings are usually fastened to the pipe with set screws and provide a tie point for securing the guy lines.

Usually, three guys, evenly spaced around the mast or pipe at a discretely chosen height, are best. This gives even tension in all directions. Try to keep an angle from the horizontal of about 45° . Be certain that whatever the bottom of each guy is fastened to is secure. Sometimes an auger-type anchor or a stake or pipe must be inserted in the ground to provide the bottom fastening point for the guys. Screw eyes or other substantial fasteners to obtain a tie point may be put into a building. It is imperative that no multiples of $1/4$ wavelength be in the vicinity of the elements. Multiples of quarter wavelengths of wire near the antenna elements tend to absorb or reflect RF and thereby, can seriously affect the operation of the antenna system.

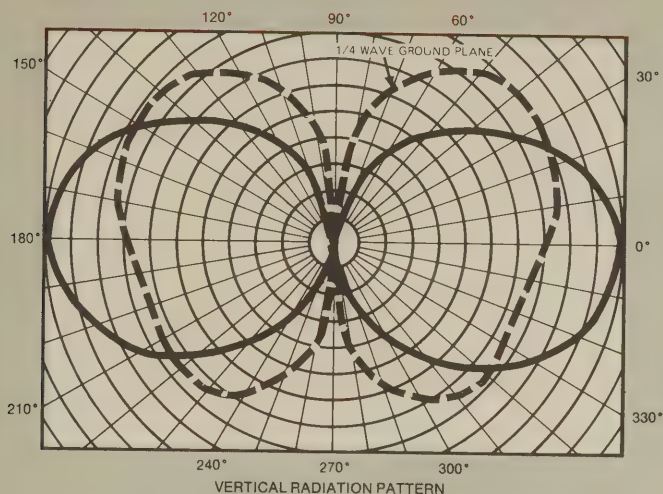
To overcome the prospect of interference by guy wires, two methods may be used:

1. The use of non-metallic guy lines. (Nylon or other synthetic fibers.)
2. Installation of strain insulators (sometimes known as "egg" insulators because of their shape); these are to be installed in such a way that all lengths of wire in the proximity of the elements are less than $1/4$ wavelength.

Following these suggestions should result in more durable weather resistant installation. Good engineering practice should always be followed.



Models ASPA600, ASPB600, ASPC600



HIGH PERFORMANCE 3dB OMNI-GAIN HEAVY-DUTY BASE STATION ANTENNA

An exceptionally rugged series of base station 25-50 MHz antennas for severe environments with three models: 25-30 MHz, 30-40 MHz, 40-50 MHz. The ASP-600 represents years of experience in the operating and environmental conditions of professional operation in the low band frequencies. The ASP-600 meets the new generation of communication radio equipment to provide better, more reliable total system operation.

The ASP-600 will handle 500 watts of RF power with plenty of reserve. An omni-directional 3 dB gain pattern provides complete coverage for your operating area.

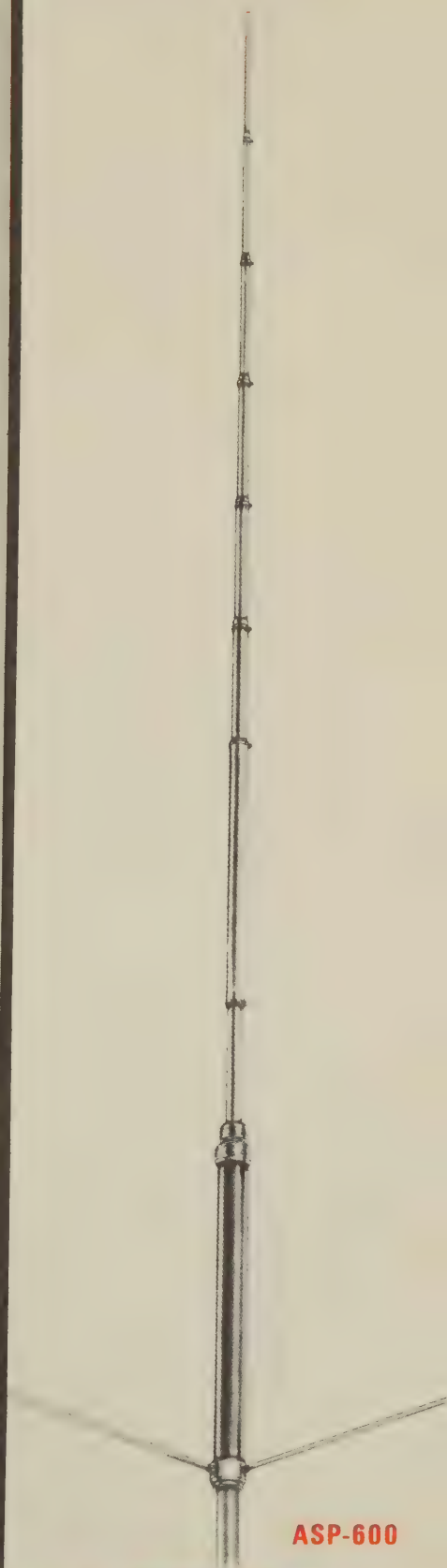
For the most rugged wind loading capabilities, a high strength aluminum alloy is provided in the support tubes. The fiber glass reinforced jacket shares the flexural load of the wind to provide a safe windload with 1.65 safety factor to meet the rigid requirements of EIA RS-329 wind load and stress.

The base tube of the radiator and transformer are separated by means of molded neoprene suspension gasket especially designed to seal out moisture throughout the life of the antenna. The transformer jacket design provides the best ultraviolet stabilization characteristics.

The antenna is DC grounded for maximum equipment protection. Tunable radials provide for maximum decoupling of RF.

The ASP-600 series is designed with the latest technologies in the communications field to provide complete weatherproofing, durability for an extended life of top quality operation as well as ease of installation.

Specifications are on the back of this page.



ASP-600



BASE STATION ANTENNAS 25-50 MHz

End-Fed Half Wave

Models ASPA600, ASPB600, ASPC600

Electrical Specifications

<i>Frequency Range:</i>	25-30 MHz (ASPA600) 30-40 MHz (ASPB600) 40-50 MHz (ASPC600)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	1 MHz
<i>Maximum Power:</i>	500 watts
<i>Type Connector:</i>	SO-239
<i>Gain:</i>	3.0 dB reference ground plane unity reference RS-329
<i>Transformer:</i>	Space wound, fiber glass reinforced
<i>Lightning Protection:</i>	DC ground through support pipe

Mechanical Specifications

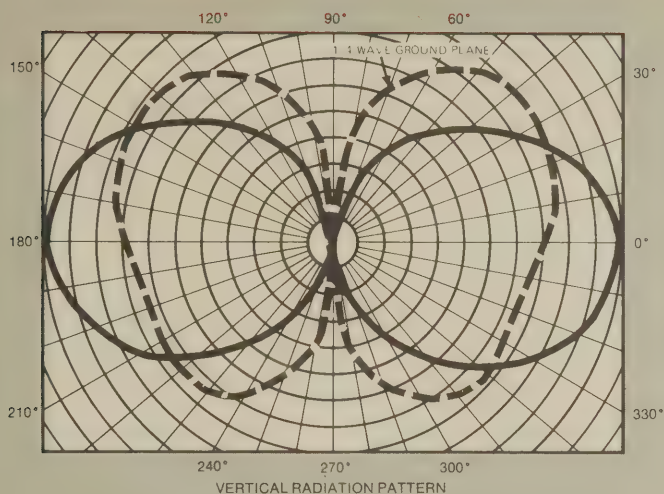
<i>Length:</i>	205" to 266" adjustable (ASPA600) 147" to 224" adjustable (ASPB600) 108" to 154" adjustable (ASPC600)
<i>Weight:</i>	16 lbs
<i>Lateral Thrust:</i> (at 1.65 safety factor)	70.9 lbs. (ASPA600) at rated wind (70 mph.) 65.8 lbs. (ASPB600) at rated wind (100 mph.) 53.3 lbs. (ASPC600) at rated wind (100 mph.)
<i>Rated Wind Velocity:</i>	70 mph. (ASPA600) 100 mph. (ASPB600) 100 mph. (ASPC600)
<i>Bending Moment:</i> (at 1.65 safety factor)	725 ft. lbs. (ASPA600) at rated wind (70 mph.) 605 ft. lbs. (ASPB600) at rated wind (100 mph.) 365 ft. lbs. (ASPC600) at rated wind (100 mph.)
<i>Mounting Mast Size:</i>	1-1/4" extra strong pipe to comply with RS-329 (not furnished)
<i>Windload:</i>	3.02 ft. ² (ASPA600) 2.46 ft. ² (ASPB600) 2.00 ft. ² (ASPC600)

ASP-600

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



Models ASP-350, ASPA350, ASPB350

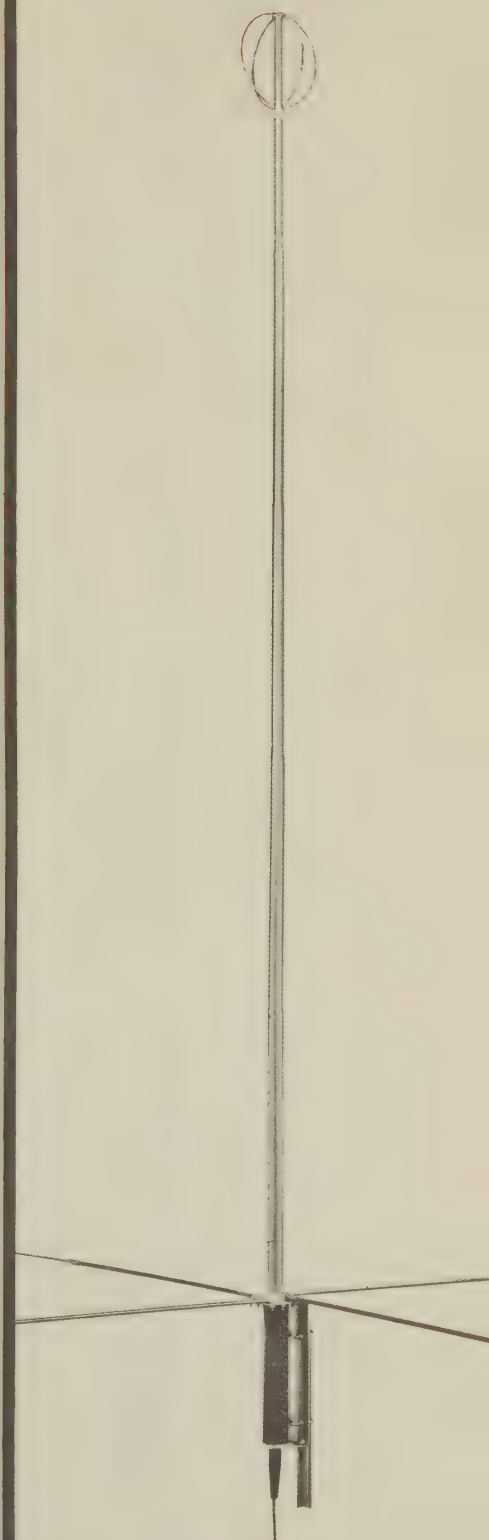


ECONOMY 3dB GAIN HALF WAVE LENGTH BASE STATION ANTENNA

This $\frac{1}{2}$ wavelength, end-fed antenna incorporates engineering techniques which provide a heavy duty, vertically polarized, omnidirectional base station antenna for 25-50 MHz. The 3 dB omnidirectional gain antenna improves the effective power of the base station transmitter and the effective sensitivity of the receiver.

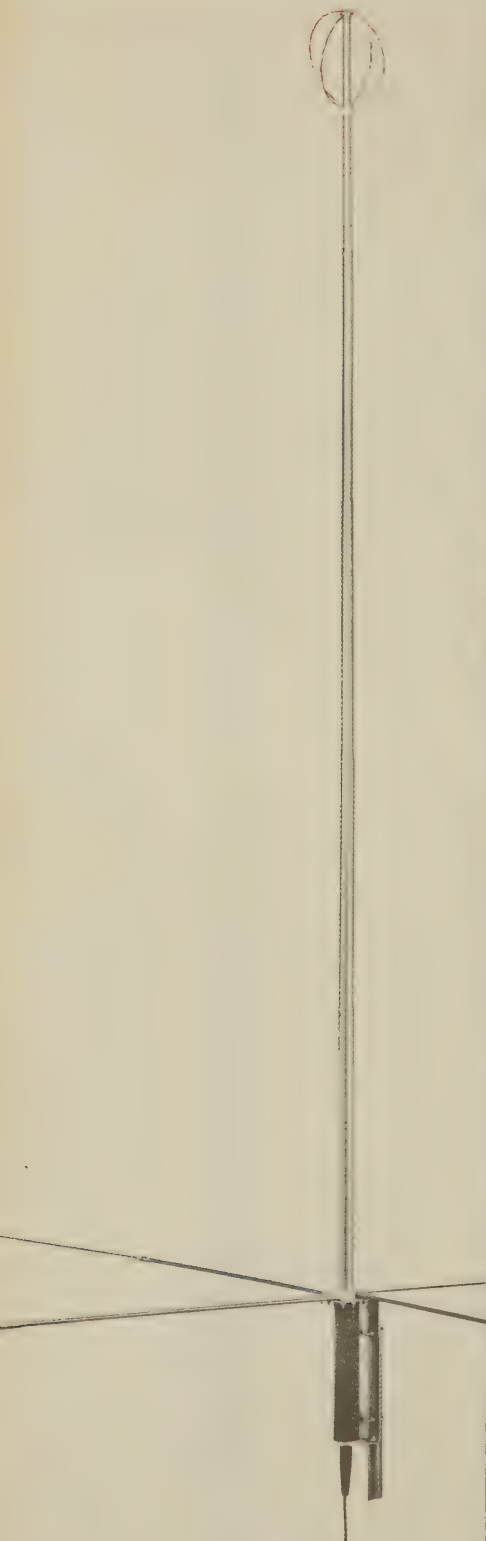
A shunt-fed transformer provides a 50 ohm feed point for the $\frac{1}{2}$ wavelength radiator, as well as a direct ground for maximum protection of the base station unit.

The antenna is adjustable through the frequency band specified and is easily tuned to operating frequency in the field. Tuning chart supplied.



ASP-350

Specifications are on back of this page.



ASP-350

Model ASP-350 Series

Electrical Specifications

<i>Frequency Range:</i>	30-40 MHz (ASP-350) 40-50 MHz (ASPA350) 25-28 MHz (ASPB350)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	2 MHz
<i>Maximum Power:</i>	200 watts
<i>Termination:</i>	SO-239
<i>Gain:</i>	3 dB reference ground plane unity reference RS-329
<i>Matching Coil:</i>	DC grounded

Mechanical Specifications

<i>Radiator Element:</i>	Rigid aluminum tubing (telescoping)
<i>Rated Wind Velocity:</i>	60 mph. at 25 MHz
<i>Length:</i>	21 ft. 4 inches at 25 MHz 16 ft. 8 inches at 30 MHz 9 ft. 0 inches at 50 MHz
<i>Projected Wind Area:</i>	1.84 ft. ² at 25 MHz

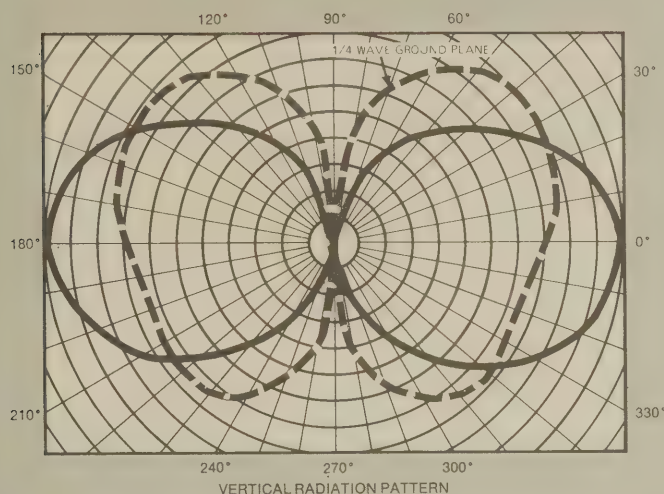
Comes complete with support bracket supplied for attachment on wooden surface or to mount on up to 1-1/2" pipe. Termination will accept PL-259 connector.

See catalog sections for mounting brackets, coaxial cables, connectors and other materials required for complete installation.

NEW

Model ASP-770

LOW BAND "BASE COMMANDER"



RUGGED FIBER GLASS LOW BAND COAXIAL ANTENNA

This lightweight durable fiber glass base station antenna provides long reliable service in even the most hostile environments. The coaxially center fed radiating element is encapsulated in rugged Armorweave™ fiber glass providing both good appearance and the ultimate in protection - ideal for salt spray and pollution - tainted environments. The ASP-770 will handle over 500 watts of RF power with ease, providing unity gain in accordance with EIA RS-329 standards. Provides excellent low radiation angle.

A wind rating of 129 mph. assures lasting performance in high wind areas.

The lightweight and absence of radials permits quick and easy installation and a 1-7/8" diameter mounting surface provides up to 24" of useable clamping area. Two feet of RG-8A/U terminated with an aircraft "K-Grip" type "N" male connector, allows flexible connection to rigid or semi-rigid transmission line. DC grounded construction provides maximum protection for equipment. Specify operating frequency when ordering.



ASP-770

BASE STATION ANTENNAS 30-50 MHz

Fiber Glass Coaxial

NEW



ASP-770

Model ASP-770

Electrical Specifications

<i>Frequency Range:</i>	30-50 MHz (specify frequency when ordering)
<i>Gain:</i>	Unity
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Maximum RF Power:</i>	500 watts
<i>Termination:</i>	24" RG-8A/U with male "K-Grip" type "N" connector
<i>Feed Method:</i>	Coaxially center fed
<i>Lightning Protection:</i>	Direct ground

Mechanical Specifications

<i>Support:</i>	2 feet 1-7/8" O.D. heavy duty heat treated aluminum
<i>Radiating Elements:</i>	Laminated in fiber glass housing
<i>Antenna Housing:</i>	Aarmorweave TM fiber glass radome
<i>Length:</i>	18.75 feet at 30 MHz
<i>Weight:</i>	10 lbs.
<i>Rated Wind Velocity:</i>	129 mph. @1.65 safety factor
<i>Lateral Thrust @100 mph.:</i>	42 lbs. at 30 MHz
<i>Bending Moment @100 mph.:</i>	237 ft. lbs. at 30 MHz
<i>Projected Wind Area:</i>	1.05 ft. ² at 30 MHz
<i>Mounting:</i>	Heavy duty mounting clamps (not furnished)

NOTE: Three clamps are required to mount an ASP-770 antenna. (Not supplied)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

Model ASP-277

GENERAL PURPOSE OMNI-DIRECTIONAL FIXED STATION ANTENNA

This antenna is an omni-directional vertically polarized, low angle fixed station antenna. It has a short length of coaxial cable with constant impedance type "N" male weatherproof connector. Adjustable through frequency range specified. Easily tuned to frequency. Easy to install, it will give years of excellent performance and trouble free service. A feature of the ASP-277, 30-50 MHz coaxial antenna is a grounded radiating element.

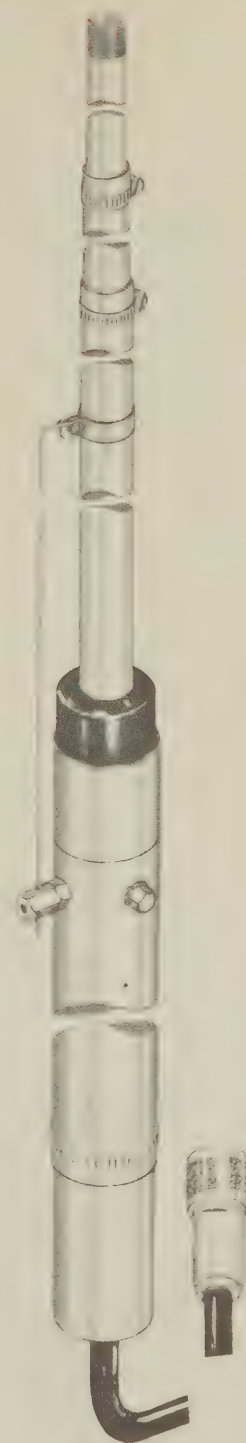
Two mounting clamps are recommended to secure antenna support pipe to mounting structure. Must be ordered separately. It is not necessary to specify frequency when ordering.

Electrical Specifications

<i>Frequency Range:</i>	30-50 MHz
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	500 kHz
<i>Maximum Power:</i>	500 watts
<i>Termination:</i>	Type "N" male connector
<i>Lightning Protection:</i>	Direct ground
<i>Pigtail:</i>	24" RG-8A/U

Mechanical Specifications

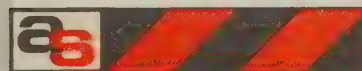
<i>Radiator Material:</i>	Heavy-duty, heat treated aluminum tubing
<i>Skirt Element:</i>	Heavy-duty, heat treated aluminum tubing
<i>Rated Wind Velocity:</i>	100 mph.
<i>Weight:</i>	14 lbs.
<i>Length:</i>	16' @30 MHz
<i>Support Pipe:</i>	1" (not supplied)
<i>Windload Ft. 2:</i>	2.5



ASP-277

NOTE: Two clamps and a short length of 1" pipe are required to mount an ASP-277 antenna. (Not supplied)

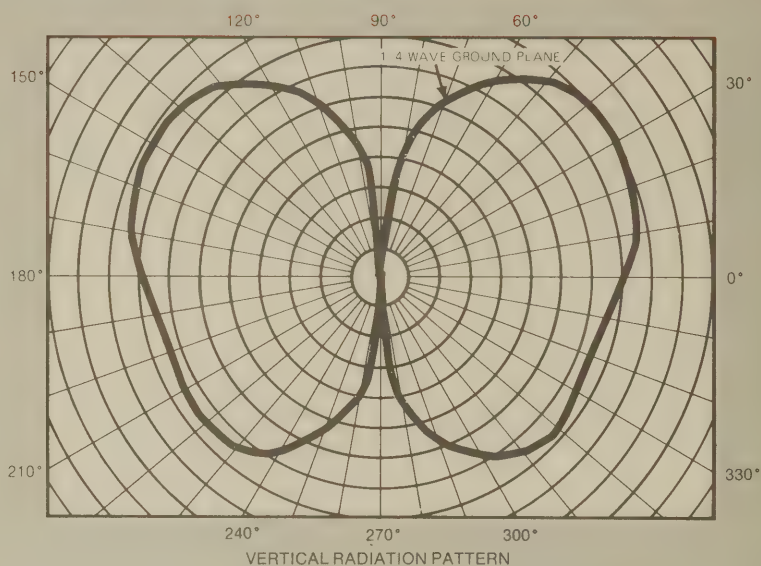
See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



BASE STATION ANTENNAS 25-54 MHz

Ground Plane

Model ASP-636



HEAVY DUTY GROUND PLANE ANTENNA

This omni-directional, vertically polarized ground plane antenna is designed for general purpose fixed station use. It is sturdily built for long life and trouble free service. The antenna mounts easily on 1-1/4" pipe and is terminated with a UHF receptacle to accept a PL-259 connector. Lightning protection is provided by a built in gap-type arrester. Frequency should be specified when ordering (otherwise, full length elements are supplied). Heavy duty, with stainless steel radiating element and ground radials.

Electrical Specifications

<i>Frequency Range:</i>	25-54 MHz (cut to frequency when requested)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	3 MHz
<i>Maximum Power:</i>	1000 watts
<i>Termination:</i>	SO-239, will accept PL-259
<i>Lightning Protection:</i>	Built-in gap type arrester

Mechanical Specifications

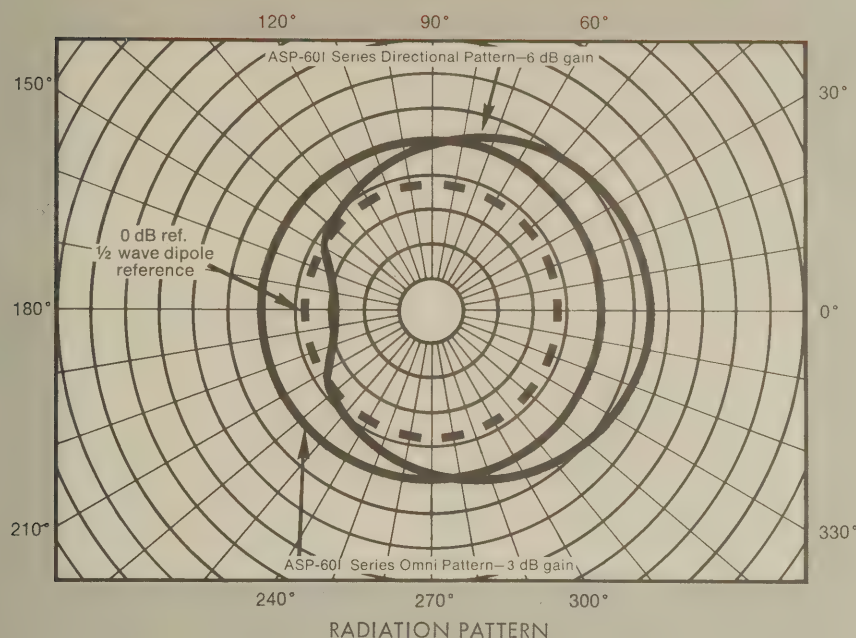
<i>Radiator Element:</i>	Stainless steel
<i>Rated Wind Velocity:</i>	125 mph.
<i>Weight:</i>	7 lbs. (shipping)
<i>Height:</i>	From 8'2" to 4'6"
<i>Windload Ft. 2:</i>	.303
<i>Support Pipe:</i>	1-1/4" pipe (not supplied)

ASP-636

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



Models ASPB601, ASPC601 VHF "POWER DIRECTOR"



RUGGED, TWO-DIPOLE, 6 dB GAIN BASE STATION ANTENNAS

A high quality series of professional, reliable base station antennas covering the 148-162 and 160-174 MHz ranges. The ASP-601 series features optimum 0.80 wavelength spacing of the twin dipoles to achieve excellent gain and impedance match. With its field adjustable dipoles in the directional configuration, the 601 series has 6 dB gain. The ASP-601 series antennas can improve the coverage and reliability of your existing communications system or are an excellent, economical means to build reserve range into your new system.

Broadband capabilities ideally suit the 601 series antennas for multi-transmitter installation or duplex operation. DC grounding through the support structure assures lightning protection.

The ASP-601 series is constructed with extra-strength materials so the antenna will withstand winds in excess of 100 mph. with a 1.65 safety factor in accordance with EIA Standard RS-329. Constructed of 3/4" diameter extruded aluminum, the radiating elements are irradiated to assure long life and great resistance to corrosion. Radiator elements are securely mounted to the support pipe with two stainless steel clamps that prevent slippage and rotation. The support pipe is constructed of 2-1/4" diameter tubing for extreme rigidity. Aircraft "K-Grip" type "N" male connectors assure positive, weatherproof electrical and physical connection. The mechanical construction of this connector permits a "connector-cable" bond that is limited only by the strength of the cable itself.

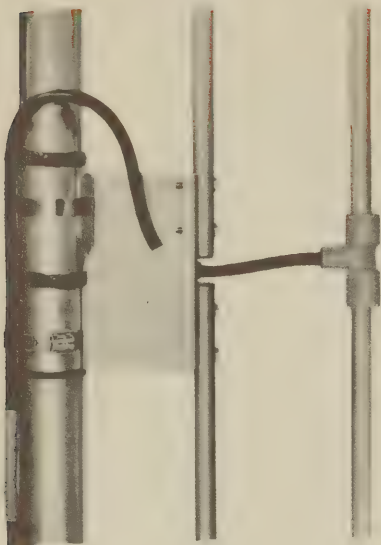


ASP-601

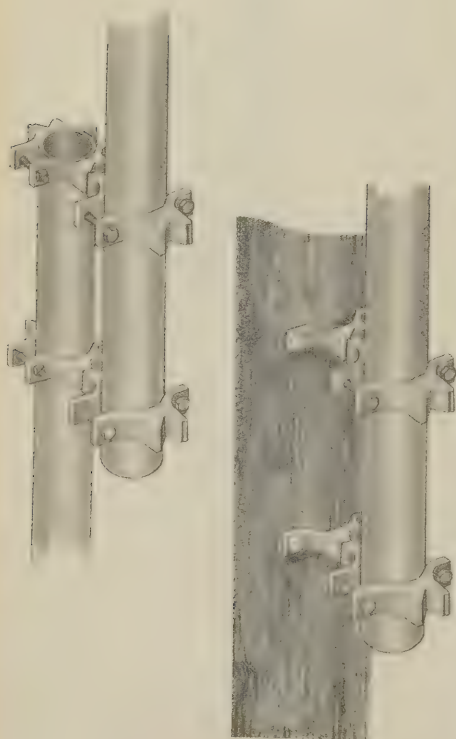


BASE STATION ANTENNAS 148-174 MHz

Adjustable Pattern



Optimum spaced, 3/4" irridited dipole mount with rugged bracket and stainless steel clamps.



Models ASPB601, ASPC601

Electrical Specifications

<i>Frequency Range:</i>	148-162 MHz (ASPB601) 160-174 MHz (ASPC601)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	14 MHz
<i>Maximum Power Input:</i>	500 watts
<i>Flexible Termination Extension:</i>	24" of RG-8A/U
<i>Termination:</i>	"K-Grip" type "N" male connector
<i>Gain:</i>	3.0 dB omni 6.0 dB offset
<i>Lightning Protection:</i>	DC ground through support pipe

Mechanical Specifications

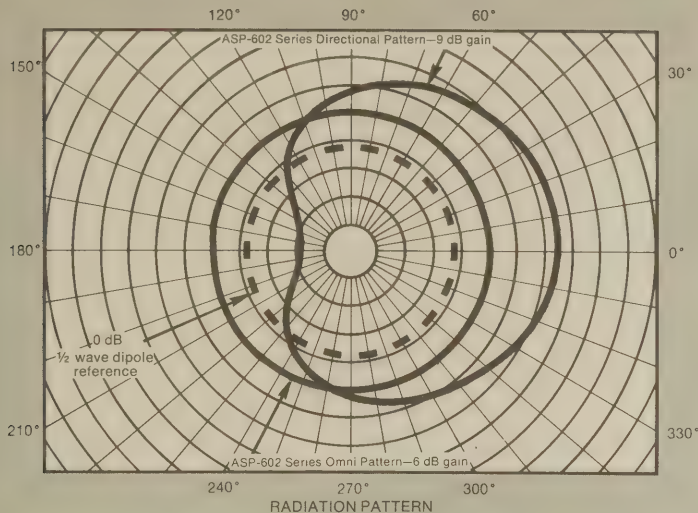
<i>Support Pipe:</i>	6063-T832 aluminum tubing; 2-1/4" O.D. w/0.083 wall
<i>Support Pipe Length:</i>	12.0 ft.
<i>Radiator Element:</i>	6063-T832 aluminum tubing; 3/4" diameter w/0.049 wall
<i>Feed Point Insulators:</i>	Weatherproof molded plastic
<i>Rated Wind Velocity:</i>	113 mph. (ASPB601) 119 mph. (ASPC601)
<i>Mounting:</i>	Two heavy duty mast clamps (not included)
<i>Radiator Mount:</i>	Two stainless steel clamps
<i>Lateral Thrust @100 mph.:</i>	94 lbs. (ASPB601) 92 lbs. (ASPC601)
<i>Bending Moment @100 mph.:</i>	403 ft. lbs. (ASPB601) 367 ft. lbs. (ASPC601)
<i>Length of Support Pipe Available for Mounting:</i>	24" (ASPB601) 30" (ASPC601)
<i>Windload:</i>	2.34 ft. ² (ASPB601) 2.31 ft. ² (ASPC601)

NOTE: Two clamps are required to mount a Series 601 antenna. (Not supplied)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



Model ASPB602, ASPC602 VHF "POWER DIRECTOR"



HIGH-PERFORMANCE, FOUR-DIPOLE, 9 dB GAIN BASE STATION ANTENNA

A series of high performance, extremely rugged base station antennas for hostile environments covering the 148-162 and 160-174 MHz ranges. The Antenna Specialists ASP-602 antenna series represents performance and endurance achievements that keep pace with the new generation of communication radio equipment and provides better, more reliable total system operation.

Designed to meet or exceed EIA Standards, the ASP-602 series will handle 500 watts of input power with reserve. The ASP-602 series is versatile, too. It can be field adjusted to a cardioid directional pattern, omni-directional pattern, or variations which will best blanket your coverage area. Optimum 0.80 wavelength spacing of the elements achieves exceptional gain and impedance match - 9 dB gain in directional configuration, 6 dB in the omni-directional configuration.

Broadband capabilities ideally suit this antenna for multi-transmitter installation and duplex operation. See the reverse side for bandwidth characteristics. DC grounding through the support structure assures lightning protection.

The ASP-602 series is constructed with extra-strength materials so the antenna will withstand winds in excess of 100 mph with a 1.65 safety factor in accordance with Standards RS-329. Constructed of 3/4" diameter extruded aluminum, the radiating elements are iridized to assure long life and great resistance to corrosion. Radiator elements are securely mounted to the support pipe with two stainless steel clamps that prevent slippage and rotation. The support pipe is constructed of two sections of 2-1/4" and 2-1/2" diameter tubing with a third section of tubing secured inside the lower support for extreme rigidity at the point of greatest stress, the mounting area.

Aircraft "K-Grip" type "N" male connectors assure positive, weather-proof electrical and physical connection. The mechanical construction of this connector permits a "connector-cable" bond that is limited only by the strength of the cable itself.

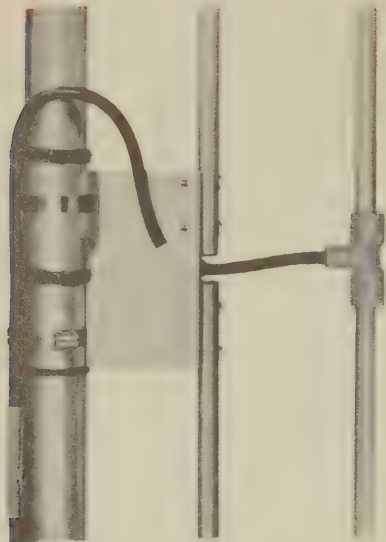


ASP-602

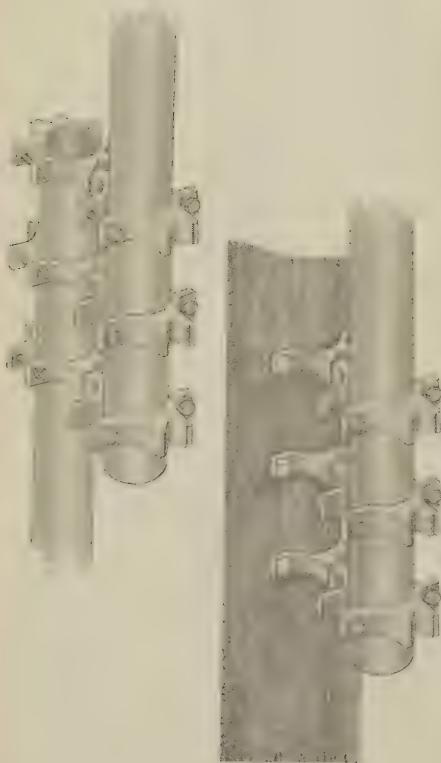


BASE STATION ANTENNAS 148-174 MHz

Adjustable Pattern



Optimum spaced, 3/4" irridited dipole mount with rugged bracket and stainless steel clamps.



Models ASPB602, ASPC602

Electrical Specifications

<i>Frequency Range:</i>	148-162 MHz (ASPB602) 160-174 MHz (ASPC602)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	12 MHz
<i>Maximum Power Input:</i>	500 watts
<i>Flexible Termination Extension:</i>	24" of RG-8A/U
<i>Termination:</i>	**K-Grip" type **N" male connector
<i>Gain:</i>	6.0 dB omni 9.0 dB offset
<i>Lightning Protection:</i>	DC ground through support pipe

Mechanical Specifications

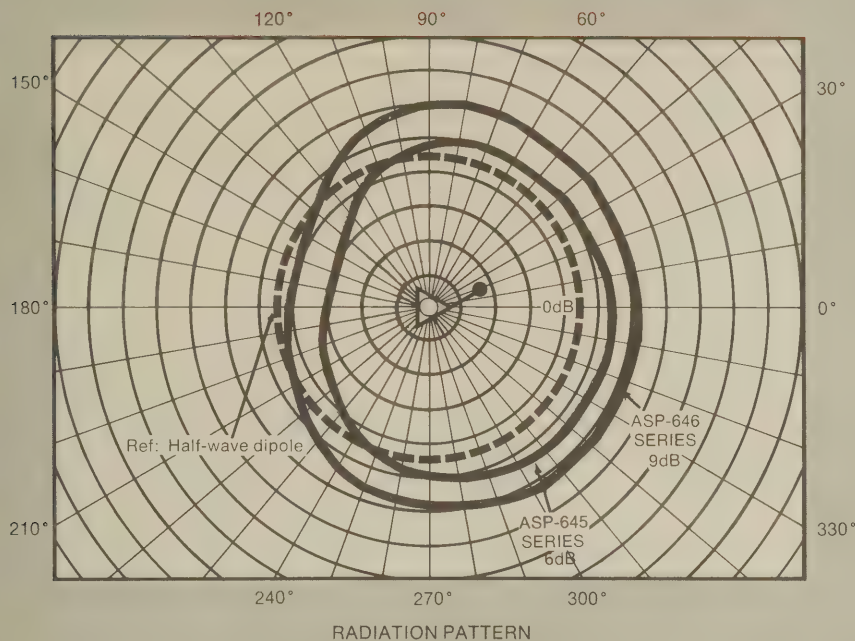
<i>Support Pipe:</i>	6063-T832 aluminum tubing; upper mast 2-1/4" O.D., w/0.083, wall lower mast 2-1/2" O.D., w/0.120, wall
<i>Support Pipe Length:</i>	22.5' (ASPB602) 22.0' (ASPC602)
<i>Radiator Element:</i>	6063-T832 aluminum tubing, 3/4" diameter w/0.049 wall
<i>Feed Point Insulators:</i>	Weatherproof molded plastic
<i>Rated Wind Velocity:</i>	100 mph. (RS-329)
<i>Weight:</i>	48 lbs.
<i>Mounting:</i>	3 heavy duty mast clamps (not included)
<i>Radiator Mount:</i>	Two stainless steel clamps
<i>Lateral Thrust @100 mph.:</i>	186 lbs. (ASPB602) 181 lbs. (ASPC602)
<i>Bending Moment:</i> 6" below bottom element	1727 ft. lbs. (ASPB602) 1596 ft. lbs. (ASPC602)
<i>Length of Support Pipe Available for Mounting:</i>	32" (ASPB602) 36" (ASPC602)
<i>Windload/sq. ft.²:</i>	4.66 (ASPB602) 4.55 (ASPC602)

NOTE: Three clamps are required to mount an ASP-602 antenna. (Not supplied)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

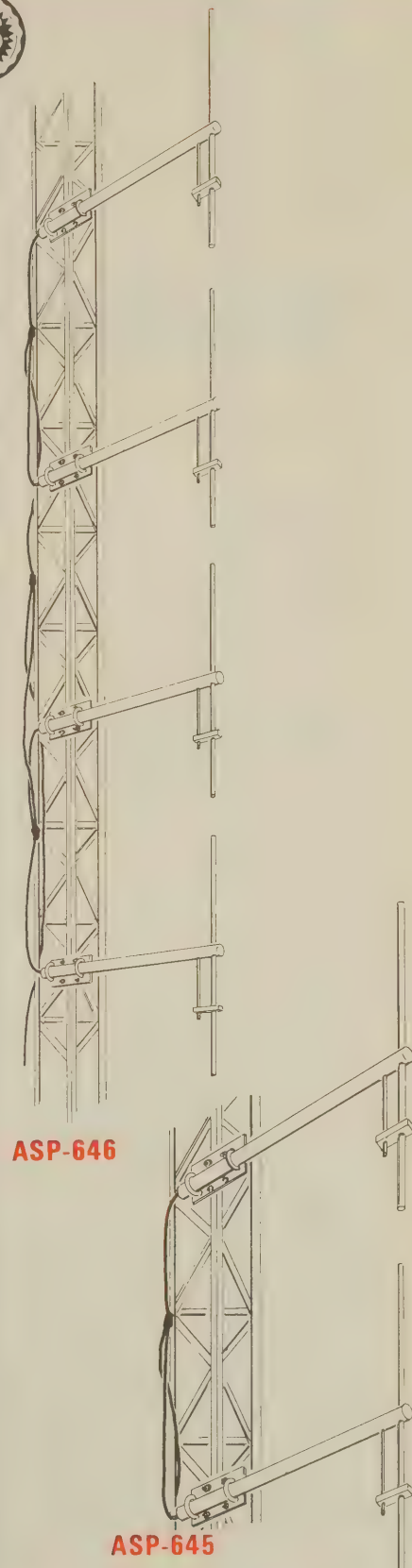


Models ASPA645, ASPB645, ASPA646, ASPB646



VHF BROADBAND HIGH PERFORMANCE SIDE MOUNTED ARRAYS

This series of rugged antennas is exceptionally versatile in mounting where tower space is at a premium. Welded aluminum construction provides strength and reliability. DC grounded radiators are gamma matched with silver plated capacitor rods and Teflon[®] insulation. Tuned before shipping to cover either 148 to 160 MHz (ASPA-prefix) or 160 to 174 MHz (ASPB-prefix). Suggest one ASP-617 mounting clamp (not supplied) per element. ASP-645 series consists of two elements with harness - 6 dB directional gain; ASP-646 series consists of four elements with harness - 9 dB directional gain. Select an appropriate model to solve your "cramped" tower problems with the proper frequency and gain requirements.

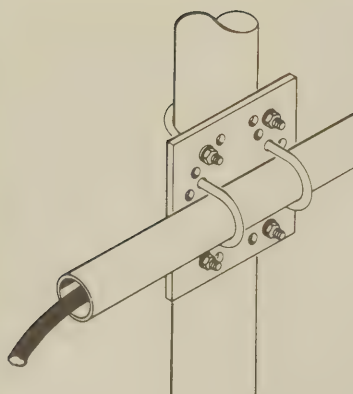


BASE STATION ANTENNAS 148-174 MHz

Unidirectional Side Tower Mount



Rugged welded aluminum radiating element with weatherproof gamma match.



Typical mounting to tower leg using ASP-617 clamp.

Models ASPA645, ASPB645, ASPA646, ASPB646

Electrical Specifications

<i>Gain:</i>	6.0 dB (RS-329) ASP-645 series 9.0 dB (RS-329) ASP-646 series
<i>Frequency Range:</i>	148-160 MHz (ASPA-prefix) 160-174 MHz (ASPB-prefix)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	15 MHz
<i>Feed Method:</i>	Gamma matched elements with molded phasing harness supplied (RG-8A/U and RG-11 A/U)
<i>Lightning Protection:</i>	Direct ground
<i>Beamwidth:</i>	180°
<i>Maximum RF Power:</i>	500 watts
<i>Termination:</i>	"K-Grip" type "N" male connector

Mechanical Specifications

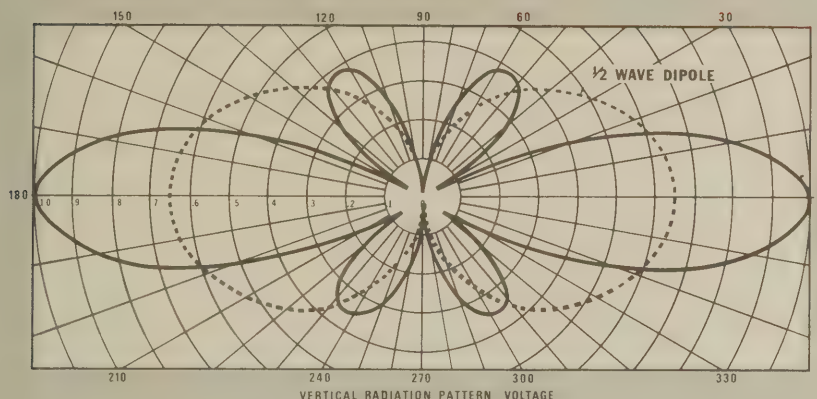
<i>Radiating Elements:</i>	3/8" dia. 6061-T6 aluminum alloy - welded to support arms
<i>Weight:</i>	5 lbs. (ASP-645 series) 10 lbs. (ASP-646 series)
<i>Rated Wind Velocity:</i>	100 mph.
<i>Lateral Thrust @100 mph.:</i>	9 lbs. per element
<i>Torsional Moment @100 mph.:</i>	7 ft. lbs. per element
<i>Projected Wind Area:</i>	.335 ft. ² per element
<i>Mounting:</i>	Suggest one ASP-617 clamp per element (Not furnished)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation



Models ASPA680, ASPB680, ASPC680, ASPD680, ASPE680, ASPF680, ASPG680, ASPH680

"BASE COMMANDER"



3 dB GAIN BROADBAND COLLINEAR FIBER GLASS VERTICAL BASE STATION ANTENNA

This is the lightweight (4 pound), reasonably priced, fiber glass antenna of highest quality and durability for your base station installations requiring medium gain.

This new series of medium gain base station antennas is available in eight models to cover 146 to 174 MHz range. Rugged Armorweave™ fiber glass construction assures long reliable service - even in the most hostile environment.

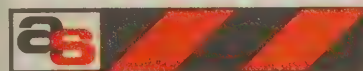
Designed to meet or exceed EIA standards, the ASP-680 series will handle 350 watts of power. Minimum 3 dB gain is provided ± 1.75 MHz of center frequency in each model range with peak gain of 3.55 dB occurring at the center frequency. Two $5/8$ wavelength radiators are precisely phased to provide maximum signal where it is needed and are encased in an Armorweave™ radome, manufactured specifically as an antenna housing by our own in-plant fiber glass facilities. The broad vertical beamwidth (29°) promises excellent coverage in difficult terrain.

Lightweight construction makes this antenna easy to install, with a heavy duty heat treated aluminum support mast providing up to 24 inches of clamping area. Installation is further simplified by the absence of radials or other appendages.

DC grounding of the radiating elements assures maximum protection for equipment.



ASP-680





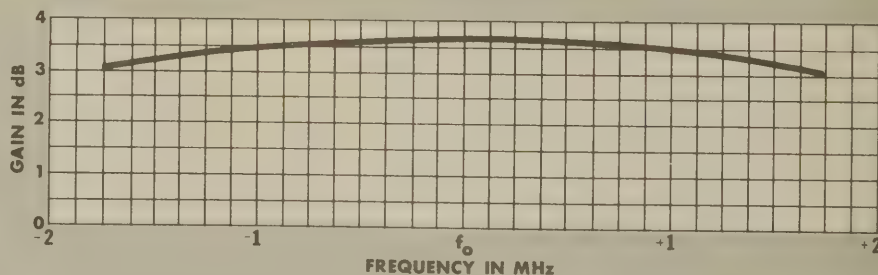
Model ASP-680 Series

Electrical Specifications

<i>Frequency Range:</i>	146.0-149.5 MHz (ASPA680) 149.5-153.0 MHz (ASPB680) 153.0-156.5 MHz (ASPC680) 156.5-160.0 MHz (ASPD680) 160.0-163.5 MHz (ASPE680) 163.5-167.0 MHz (ASPF680) 167.0-170.5 MHz (ASPG680) 170.5-174.0 MHz (ASPH680)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	3.5 MHz
<i>Maximum RF Power:</i>	350 watts
<i>Flexible Termination Extension:</i>	24" of RG-8A/U with male "K-Grip" type "N" connector
<i>Gain:</i>	3 dB minimum (RS-329) 3.55 dB maximum at center frequency

Mechanical Specifications

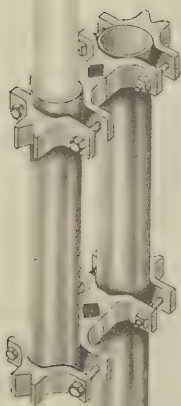
<i>Support:</i>	1-5/16" O.D. heavy duty heat treated aluminum
<i>Radiating Elements:</i>	3/16" dia. brass tube
<i>Antenna Housing:</i>	Armorweave™ fiber glass radome
<i>Mounting:</i>	Heavy duty mast clamps (not furnished)
<i>Antenna Length:</i>	11.4 feet at lowest frequency
<i>Weight:</i>	4 lbs.
<i>Rated Wind Velocity:</i>	118 mph. @1.65 safety factor (RS-329)
<i>Lateral Thrust:</i>	27.4 lbs. (100 mph.)
<i>Bending Moment:</i>	1170 in. lbs. (100 mph.)
<i>Projected Wind Area:</i>	0.996 feet ²



GAIN BANDWIDTH CURVE

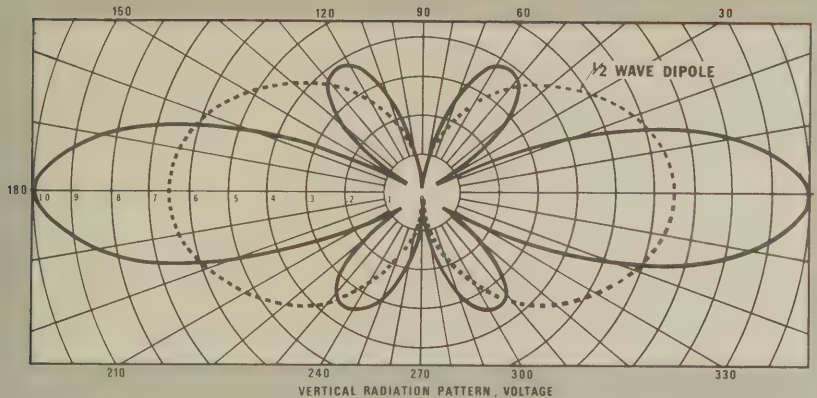
NOTE: Two clamps are required to mount an ASP-680 antenna. (Not furnished)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



ASP-680

Model ASP-681 DELUXE "BASE COMMANDER"



3.55dB GAIN BROADBAND COLLINEAR FIBER GLASS VERTICAL BASE STATION ANTENNA

For optimum performance, the ASP-681 provides minimum 3.55 dB gain at specified frequencies. Each antenna is custom tuned to your operating frequency for lowest VSWR and maximum gain.

Ideal for duplexing, this model delivers a solid 2.75 dB minimum gain ± 5 MHz of resonant frequency.

Two DC grounded 5/8 wavelength brass radiating elements enclosed in an Armorweave™ radome are exactly phased for maximum useable signal and long reliable service at RF power levels up to 350 watts.

The absence of radials and lightweight construction (4 pounds) make this antenna convenient to install - with no compromise in durability or performance. A 1-5/16" O.D. heavy duty heat treated aluminum support provides 24 inches of clamping area and 2 feet of RG-8A/U cable with an aircraft "K-Grip" type "N" male connector simplifies connection to rigid transmission line.

Coverage of a wide variation of topographical conditions is assured by broad (29°) vertical beamwidth.



ASP-681

BASE STATION ANTENNAS 146-174 MHz

Fiber Glass Omni



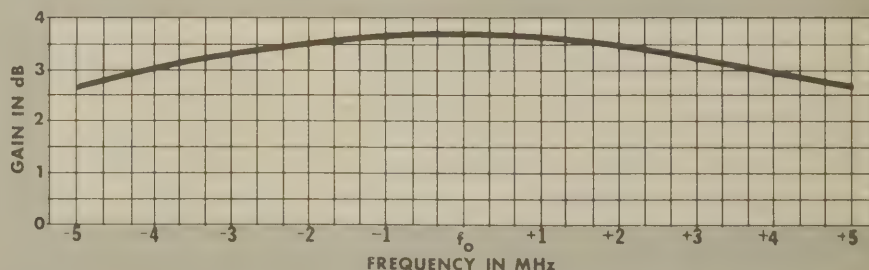
Model ASP-681

Electrical Specifications

Frequency Range:	146-174 MHz (Specify exact frequency when ordering)
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Bandwidth:	3.5 MHz
Vertical Beamwidth:	29°
Maximum RF Power:	350 watts
Flexible Termination Extension:	24" of RG-8A/U with male type "N" connector
Gain (RS-329):	3.55 dB minimum at specified frequency 2.75 dB minimum ± 5 MHz (for Duplex Receiving)

Mechanical Specifications

Support:	1-5/16" O.D. heavy duty heat treated aluminum
Radiating Elements:	3/16" dia. brass tube
Antenna Housing:	Aarmorweave™ fiber glass radome
Mounting:	Heavy duty mast clamps (not furnished)
Antenna Length:	11.4 feet at lowest frequency
Weight:	4 lbs.
Rated Wind Velocity:	118 mph. @ 1.65 safety factor (RS-329)
Lateral Thrust:	27.4 lbs. (100 mph.)
Bending Moment:	1170 inch pounds (100 mph.)
Projected Wind Area:	0.996 feet ²

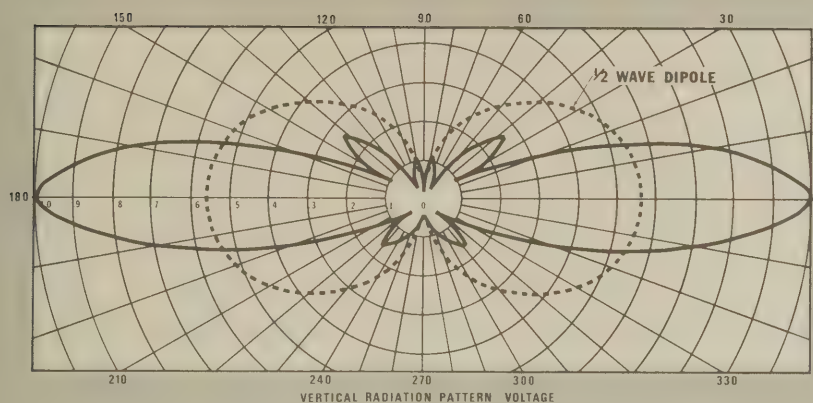


GAIN BANDWIDTH CURVE

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



Models ASPA682, ASPB682, ASPC682, ASPD682, ASPE682, ASPF682 SUPER "BASE COMMANDER"



4.5dB GAIN BROADBAND COLLINEAR FIBER GLASS VERTICAL BASE STATION ANTENNA

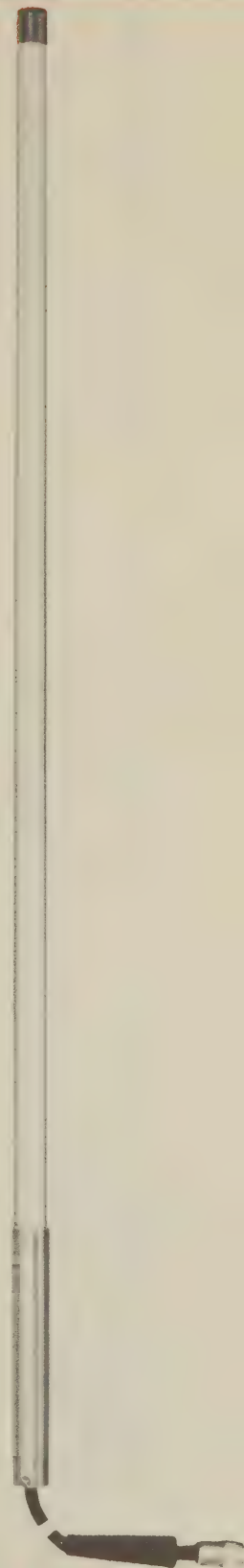
Designed with performance in mind, the ASP-682 series delivers minimum 4.5 dB omnidirectional gain across a 6 MHz bandwidth, with peak gain of 5 dB occurring at the center of each band segment.

The lightweight (9.5 lbs.) construction and absence of radials simplifies installation without sacrificing durability. A heavy duty heat treated aluminum support mast provides up to 24 inches of clamping area and two feet of RG-8A/U cable terminated with an aircraft "K" - Grip type "N" male connector allows flexible connection to rigid or semi-rigid transmission line.

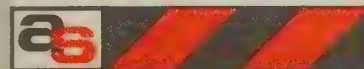
A rugged Armorweave™ fiber glass radome encloses the radiating elements and provides complete protection for the antenna—even in severe environmental conditions.

The ASP-682 series is wind rated at 128 mph. with a generous 1.65 safety factor. The flexing action of the fiber glass radome causes shake-off of ice accumulations under extreme weather conditions.

Three $5/8$ wavelength radiators are precisely phased for maximum signal and will handle 350 watts of RF power with ease. DC grounding of the radiating elements assures maximum protection for equipment.



ASP-682





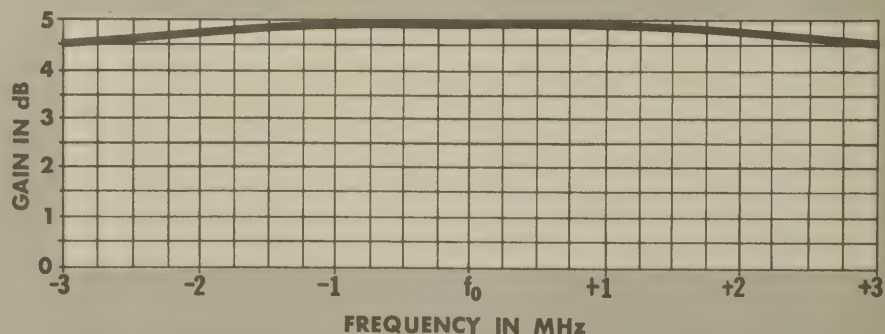
Model ASP-682 Series

Electrical Specifications

<i>Frequency Range:</i>	148-154 MHz (ASPA682) 152-158 MHz (ASPB682) 156-162 MHz (ASPC682) 160-166 MHz (ASPD682) 164-170 MHz (ASPE682) 168-174 MHz (ASPF682)
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Bandwidth:</i>	6 MHz
<i>Vertical Beamwidth:</i>	22°
<i>Maximum RF Power:</i>	350 watts
<i>Flexible Termination Extension:</i>	24" of RG-8A/U with male "K-Grip" type "N" connector
<i>Gain:</i>	4.5 dB minimum (RS-329) 5.0 dB maximum at center frequency

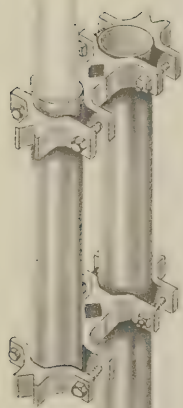
Mechanical Specifications

<i>Support:</i>	1-7/8" heavy duty heat treated aluminum
<i>Radiating Elements:</i>	3/16" brass tube
<i>Antenna Housing:</i>	Armorweave™ fiber glass radome
<i>Mounting:</i>	Heavy duty mast clamps (not furnished)
<i>Antenna Length:</i>	16.2 ft.
<i>Weight:</i>	9.5 lbs.
<i>Rated Wind Velocity:</i>	128 mph. @1.65 safety factor (RS-329)
<i>Lateral Thrust:</i>	50.37 lbs. (100 mph.)
<i>Bending Moment:</i>	3374 inch pounds (100 mph.)
<i>Projected Wind Area:</i>	1.88 feet ²



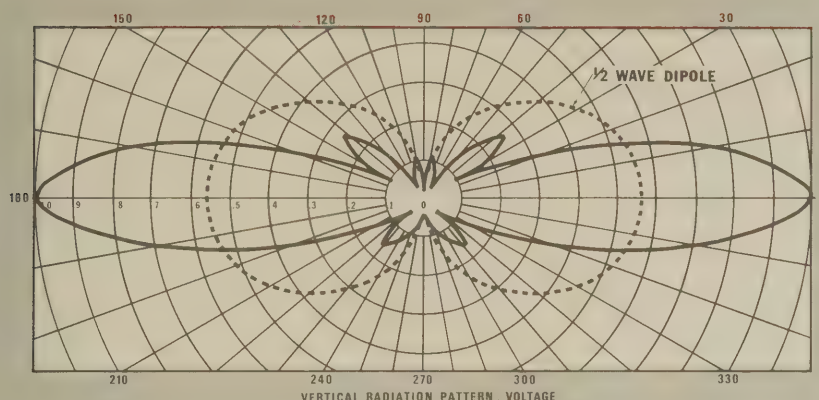
NOTE: Two clamps are required to mount an ASP-682 antenna. (Not furnished.)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



ASP-682

Model ASP-298



HIGH-PERFORMANCE COLLINEAR VERTICAL 4.5 dB GAIN, BASE STATION ANTENNA

The ASP-298 Collinear Vertical has been designed to meet the needs of the more rugged and higher power base station operation of today. With each antenna tailored to your specific frequency requirements, you maximize performance with 4.5 dB omni-directional gain. Built to last under severe weather and wind conditions, the ASP-298 was tested with continuous transmit power of 500 watts to provide extra power capability.

The radiating element support is grounded and the collinear radiating elements are enclosed in a PVC jacket. Complete lightning protection is assured as well as reduced static noise. The antenna is supplied with a 6" length of RG-8/U coaxial cable terminated with a constant impedance type "N" male weatherproof connector.

Specify exact frequency when ordering.

Electrical Specifications

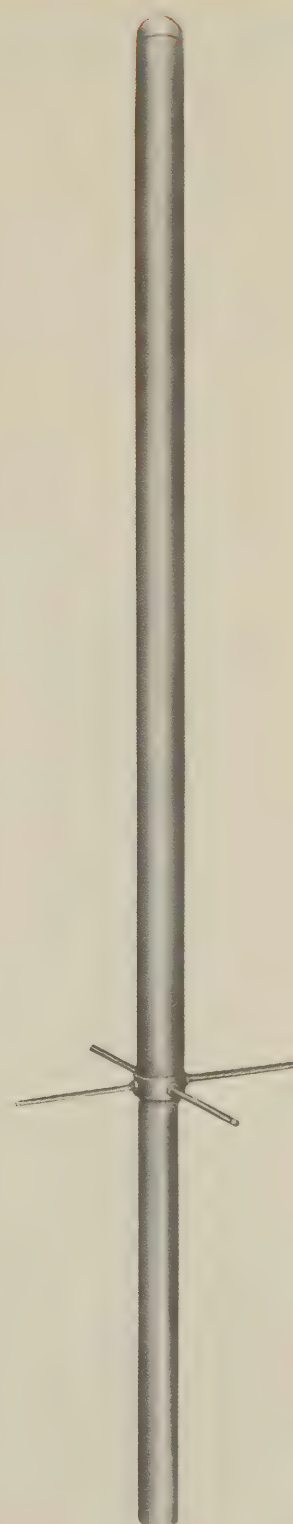
Frequency Range:	130-174 MHz
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Bandwidth:	500 kHz
Maximum Power Input:	500 watts
Gain:	6.0 dB reference ground plane 4.5 dB reference RS-329
Lightning Protection:	Direct ground through support mast

Mechanical Specifications

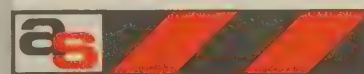
Support:	Heavy-duty, heat treated reinforced aluminum (furnished)
Feed Point Connector:	Type "N" male
Rated Wind Velocity:	100 mph. @1.65 safety factor
Weight:	25 lbs.
Mounting:	Heavy-duty mast clamps (not included)
Lateral Thrust:	63.2 lbs.
Bending Moment:	465 ft. lbs.
Antenna Length:	17 feet
Radiating Element:	2" dia. aluminum dipoles
Isolating Element:	3/8" dia. heat-treated aluminum
Antenna Housing:	Weather protecting PVC (rigid vinyl) jacket
Wind Load:	2.37 ft.2

Exact frequency of operation must be specified when ordering. Comes with 6" of RG-58/U cable terminated with a type N male connector. An adapter for accepting a PL-259 connector is also included. Recommend two mounting clamps be used to secure antenna support pipe to mounting structure. (Not supplied).

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



ASP-298

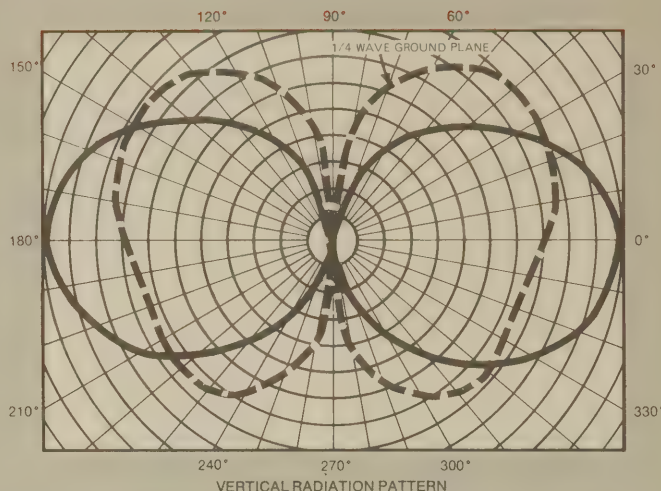


BASE STATION ANTENNAS 130-174 MHz

End Fed Half Wave



Model ASP-291



LOW ANGLE OMNI HEAVY-DUTY BASE STATION ANTENNA

A rugged base station 130-174 MHz antenna for hostile environments. The ASP-291 meets the new generation of communication radio equipment needs to provide better, more reliable total system operation.

Designed to meet EIA RS-329, the ASP-291 will handle 500 watts of power with plenty of reserve. A compressed omni-directional pattern provides complete coverage for your operating area.

The 1/2 wave end-fed antenna with decoupling sleeve, vertically polarized, features rugged construction to assure long life and trouble-free service.

Direct ground design provides maximum protection for base station equipment. Field-adjustable through the entire 130-174 MHz range - not necessary to specify frequency when ordering.

Comes complete with 1" support pipe, and short length of RG-8/U coaxial cable with type "N" male weatherproof connector. Recommend two mounting clamps. (Not supplied).

Electrical Specifications

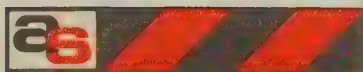
Frequency Range:	130-174 MHz
Gain:	3 dB (reference ground plane) (unity RS-329)
Impedance:	50 ohms
Termination:	Type "N" male connector
VSWR:	Less than 1.5:1
Maximum Power:	500 watts
Lightning Protection:	Direct ground
Bandwidth:	4 MHz

Mechanical Specifications

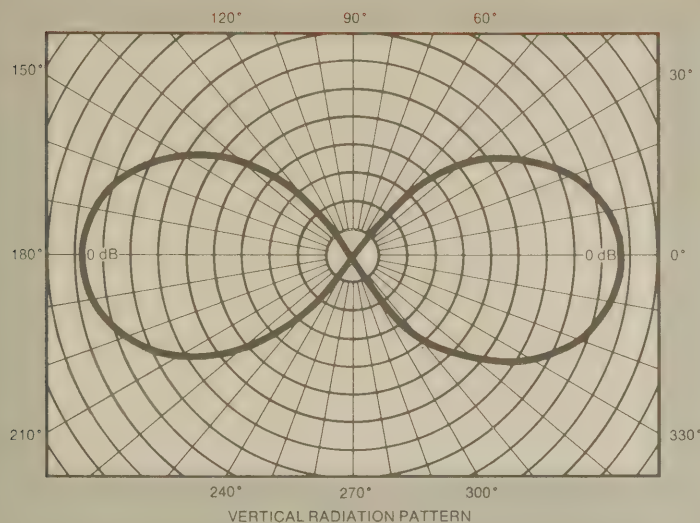
Radiating and Isolating Elements:	Heavy-duty heat treated aluminum tubing
Support Pipe:	1" pipe (supplied)
Length:	6-1/2' at 160 MHz
Antenna Weight:	3 lbs. (excluding mounting pipe)
Wind Rating:	100 mph. @1.65 safety factor
Wind Load:	1.0 ft. ²

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

ASP-291



Models ASP-244, ASPA244



COAXIAL HALF WAVE ANTENNA

This coaxial antenna is an omni-directional vertically polarized fixed-station antenna with unity gain concentrating RF energy at a low angle to provide excellent all-around radio coverage. It is adjustable through the frequency range specified and is easily tuned to operating frequencies in the field. Easy to install, it will give years of excellent performance and trouble-free service. Supplied with a short length of coaxial cable terminated with a constant impedance type "N" male weatherproof connector. It is not necessary to specify frequency when ordering. Select proper range from specifications below.

Electrical Specifications

<i>Frequency Range:</i>	130-150 MHz (ASP-244) 150-174 MHz (ASPA244)
<i>Impedance:</i>	50 ohms
<i>Termination:</i>	Type "N" male connector
<i>VSWR:</i>	Less than 1.5:1
<i>Maximum Power:</i>	500 watts
<i>Lightning Protection:</i>	Built-in gap type
<i>Bandwidth:</i>	2 MHz

Mechanical Specifications

<i>Radiating Element:</i>	Stainless steel rod
<i>Skirt Element:</i>	Heavy duty heat treated aluminum tubing
<i>Support Pipe:</i>	3/4" pipe (supplied)
<i>Length:</i>	Approximately 6' (with support pipe)
<i>Shipping Weight:</i>	7 lbs.
<i>Rated Wind Velocity:</i>	100 mph.
<i>Projected Area:</i>	0.4 ft. ²



ASP-244

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



BASE STATION ANTENNAS 148-174 MHz

Corner Reflector

Model ASPB603

RUGGED HIGH PERFORMANCE 8 dB GAIN CORNER REFLECTOR ANTENNA

This broadband VHF 90° corner reflector is a ruggedly constructed fixed-station antenna. It provides 8 dB unidirectional gain with a 25 dB deep null in the opposite direction. Ideal for point-to-point communications. Built with high strength corrosion resistant aluminum for maximum mechanical durability. Meets EIA RS-329 standards.

Electrical Specifications

Gain:	8 dB
Front To Back Ratio:	25 dB
Frequency Range:	148-174 MHz (broadband)
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Bandwidth:	26 MHz
Maximum RF Power:	500 watts
Termination:	Type "N" male connector
Feed Method:	Gamma matched half wave radiator
Lightning Protection:	Direct ground

Mechanical Specifications

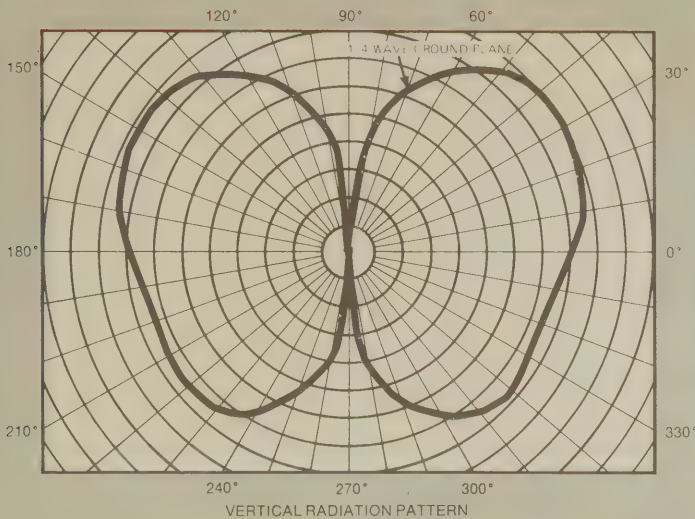
Reflector Size:	4 ft. by 5 ft. (each side)
Weight:	20 lbs.
Rated Wind Velocity:	100 mph.
Lateral Thrust @100 mph.:	107 lbs.
Torsional Moment @100 mph.:	295 ft.lb.
Projected Wind Area:	4.5 ft. ²
Mounting:	2 heavy duty mast clamps (not supplied)



ASPB603

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

Models ASP-634, ASP-635



GROUND PLANE ANTENNA

This omnidirectional, vertically polarized ground plane antenna is designed for general purpose fixed station use. It is sturdily built for long life and trouble free service. Available with cadmium plated steel elements (ASP-634) for general use, or with 3/8" diameter aluminum elements (ASP-635) for rugged environments. The antenna mounts easily on threaded 1-1/4" NPT pipe (not supplied) and is terminated with a UHF receptacle to accept a PL-259 connector. Equipment protection is provided by a built in gap type arrester.

Full length elements and cutting chart will be supplied if no frequency is specified. May be easily tuned in the field.

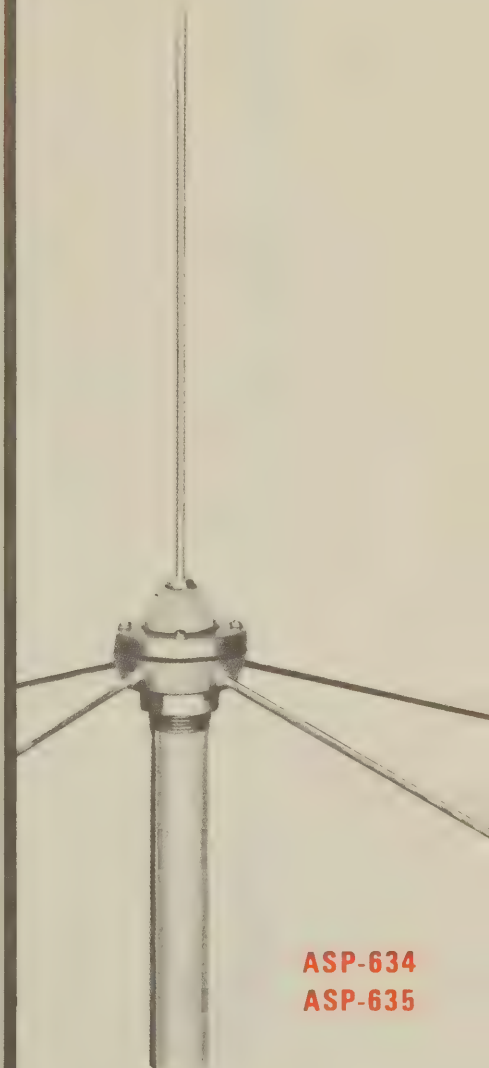
Electrical Specifications

Frequency Range:	130-174 MHz (ASP-634) 120-174 MHz (ASP-635)
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Bandwidth:	±2 MHz
Maximum RF Power:	1000 watts
Termination:	SO-239 (accepts PL-259 connector)
Lightning Protection:	Built in gap type arrester

Mechanical Specifications

Support:	1-1/4" NPT threaded pipe (not supplied)
Radiation Element and Radials:	Cadmium plated steel (ASP-634) 3/8" aluminum rod (ASP-635)
Length:	2 ft. at lowest frequency
Weight:	3.0 lbs. (ASP-634) 2.5 lbs. (ASP-635)
Rated Wind Velocity:	100 mph
Projected Wind Area:	.12 ft. ²
Mounting:	Recommend two mast clamps (not supplied)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



ASP-634
ASP-635



Model ASP-7A

GROUND PLANE ANTENNA

Light duty quarterwave ground plane antenna features chrome plated brass radiator and stainless steel radials. May be installed in just minutes on masts up to 1-1/4" O.D. Low cost, easily mounted, dependable performance, field tuneable to desired frequency.

Electrical Specifications

Frequency Range:	108-174 MHz
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum RF Power:	100 watts
Termination:	SO-239 (accepts PL-259 connector)
Lightning Protection:	Built in spark gap arrester

Mechanical Specifications

Support:	1-1/4" max. O.D. tubing (not supplied)
Radiating Element:	Chrome plated brass
Radials:	Stainless steel
Length:	26" at lowest frequency
Rated Wind Velocity:	100 mph

Model ASP-655

END FED HALF WAVE ANTENNA

Optimum performance at low cost from this half wave antenna. Unity gain per E.I.A. RS-329 Standard. Same quick mounting as ASP-7A. Silver plated stainless steel radiator for maximum efficiency and stainless steel radials. Mounts on masts up to 1-1/4" O.D. Field tuneable with cutting chart supplied.

Electrical Specifications

Gain:	Unity (RS-329) 3 dB (reference ground plane)
Frequency Range:	130-174 MHz
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum RF Power:	100 watts
Termination:	SO-239 (accepts PL-259 connector)
Feed Method:	Shunt fed, DC grounded matching transformer, weatherproof
Lightning Protection:	DC ground

Mechanical Specifications

Support:	1-1/4" max. O.D. tubing (not supplied)
Radiating Element:	Silver plated 17-7 PH stainless steel
Radials:	Stainless steel
Length:	54" at lowest frequency
Rated Wind Velocity:	100 mph

ASP-7A

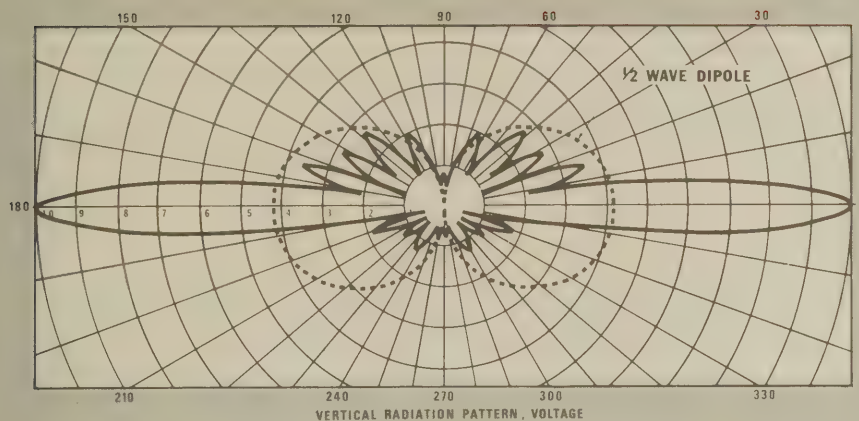
NEW

ASP-655

Models ASPA700, ASPB700, ASPC700, ASPD700, ASPE700, ASPF700



"BASE COMMANDER"



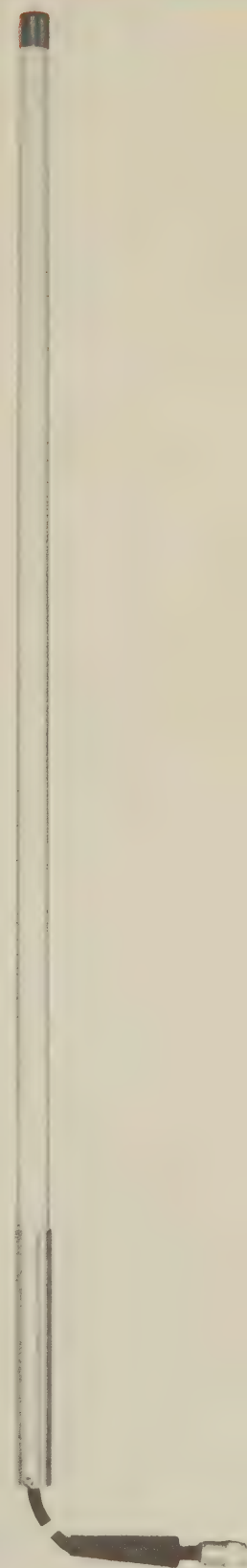
7.0*dB GAIN HIGH PERFORMANCE UHF BROADBAND COLLINEAR FIBER GLASS VERTICAL BASE STATION ANTENNA

A UHF "Base Commander" antenna offering; - high performance, light weight, easy installation and made of durable fiber glass.

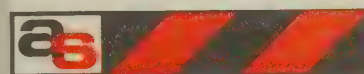
This series of UHF fiber glass antennas is available in three models for the 450 to 470 MHz band. The light weight (5 pounds) and absence of radials simplifies installation and a heavy duty heat treated aluminum support mast provides up to 24 inches of usable clamping area. The ASP-700 series delivers minimum EIA (RS-329) gain of 7.0 dB* throughout the entire band with higher peak gain occurring across certain ranges (see gain curves). Radiating elements are 3/16" diameter brass tube, precisely phased and DC grounded, and will handle 250 watts of RF power with ease. The exclusive Armorweave™ fiber glass radome completely encloses the radiators and assures long dependable service in all environmental conditions.

Excellence in design and construction assures uncompromised performance.

* except 406-420 MHz - see specifications



ASP-700

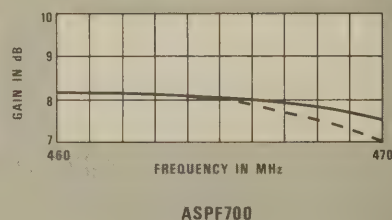
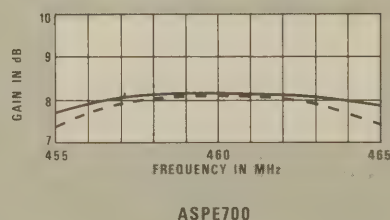
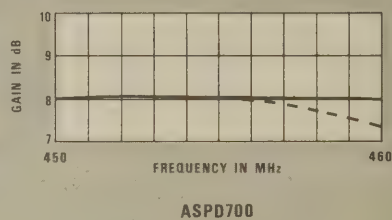
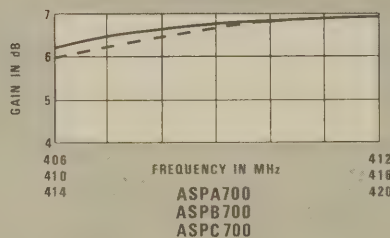
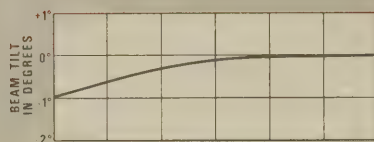




Model ASP-700 Series



ASP-700



Electrical Specifications

Frequency Range:	406-412 MHz (ASPA700)	
	410-416 MHz (ASPB700)	
	414-420 MHz (ASPC700)	
	450-460 MHz (ASPD700)	
	455-465 MHz (ASPE700)	
	460-470 MHz (ASPF700)	
Nominal Input Impedance:	50 ohms	
VSWR:	Less than 1.5:1	
Bandwidth:	6 MHz (406-420 MHz)	
	10 MHz (450-470)	
Vertical Beamwidth:	13 degrees (406-420 MHz)	
	10 degrees (450-470 MHz)	
Maximum RF Power:	250 watts	
Flexible Termination Extension:	24" of RG-8A/U with male type "N" connector	
Gain:	Measured at Horizon	Min. Gain in Major Lobe
	(RS-329)	
	ASPA700 6.0 dB	6.5 dB
	ASPB700 6.0 dB	6.5 dB
	ASPC700 6.0 dB	6.5 dB
	ASPD700 7.5 dB	8.0 dB
	ASPE700 7.25 dB	7.75 dB
	ASPF700 7.0 dB	7.5 dB

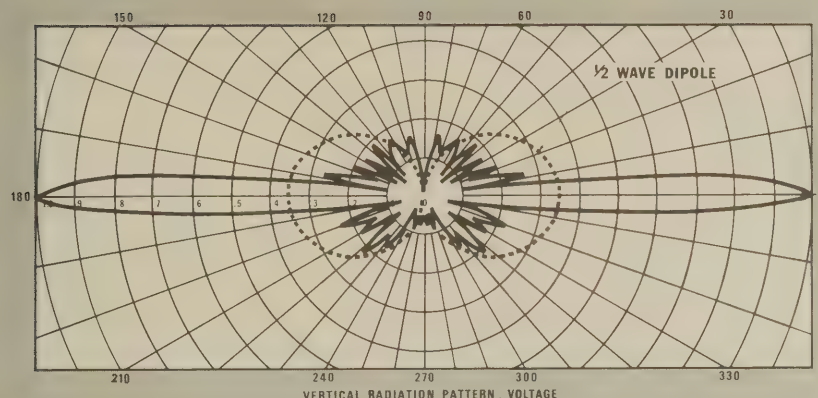
Mechanical Specifications

Support:	1-5/16" O.D. heavy duty heat treated aluminum
Radiating Elements:	3/16" dia. brass tube
Antenna Housing:	Armorweave™ fiber glass radome
Mounting:	Heavy duty mast clamps (not furnished)
Antenna Length:	12.9 feet
Weight:	5 pounds
Rated Wind Velocity:	103 mph @1.65 safety factor (RS-329)
Lateral Thrust:	29.8 pounds (100 mph)
Bending Moment:	1571 inch pounds (100 mph)
Projected Wind Area:	1.12 feet ²



Models ASPD701, ASPE701, ASPF701

DELUXE "BASE COMMANDER"



8.25 dB GAIN SUPER PERFORMANCE UHF BROADBAND COLLINEAR FIBER GLASS VERTICAL BASE STATION ANTENNA

The "Top" of the Base Commander line, the ASP-701 series antenna provides minimum 8.25 dB gain for that needed "extra range" communications, while higher peak gain occurs across most of the operating range (see gain curves). Available in three models to cover the 450 to 470 MHz band, this antenna contains the features of higher priced antennas with no compromise in construction or performance. An Armorweave™ fiber glass radome completely encloses the carefully designed radiating elements to assure long dependable service in all climates. The absence of radials, together with the lightweight (9.5 pounds) makes this antenna an installer's dream. A 24 inch flexible pigtail provides easy connection to semi-rigid transmission line. A heavy duty 1-7/8 inch heat treated aluminum support mast allows up to 24 inches of length to be utilized for mounting clamps. The 3/16" diameter brass tube radiating elements will easily handle 250 watts of RF power, while being at DC ground potential to insure maximum protection for equipment.

ASP-701



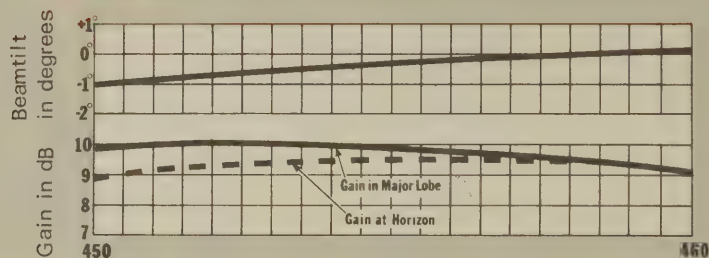
BASE STATION ANTENNAS 450-470 MHz

Fiber Glass Omni

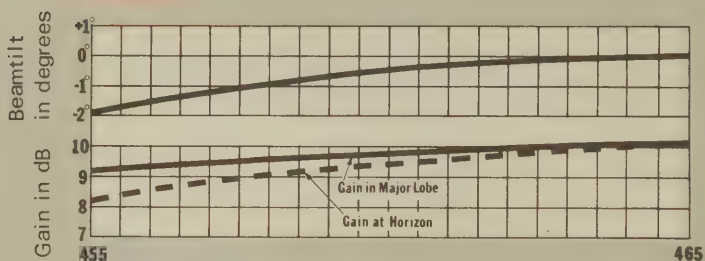


Model ASP-701 SERIES

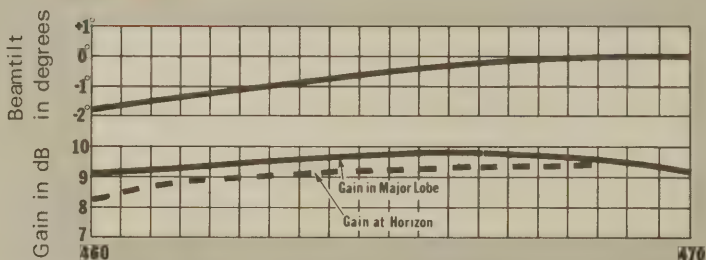
ASPD701



ASPE701



ASPF701



Electrical Specifications

Frequency Range:	450-460 MHz (ASPD701) 455-465 MHz (ASPE701) 460-470 MHz (ASPF701)	
Nominal Input Impedance:	50 ohms	
VSWR:	Less than 1.5:1	
Bandwidth:	10 MHz	
Vertical Beamwidth:	8°	
Maximum RF Power:	250 watts	
Flexible Termination Extension:	24" of RG-8A/U with male "K-Grip" type "N" connector	
Gain:	Measured at Horizon (RS-329)	Min. Gain in Major Lobe
	ASPD701 8.75 dB	9.0 dB
	ASPE701 8.25 dB	9.25 dB
	ASPF701 8.25 dB	9.0 dB

Mechanical Specifications

Support:	1-7/8" O.D. heavy duty heat treated aluminum
Radiating Elements:	3/16" dia. brass tube
Antenna Housing:	Armorweave™ fiber glass radome
Mounting:	Heavy duty mast clamps (not furnished)
Antenna Length:	16.2 feet
Weight:	9.5 pounds
Rated Wind Velocity:	128 mph. @1.65 safety factor (RS-329)
Lateral Thrust:	50.37 pounds (100 mph.)
Bending Moment:	3374 inch pounds (100 mph.)
Projected Wind Area:	1.88 feet ²

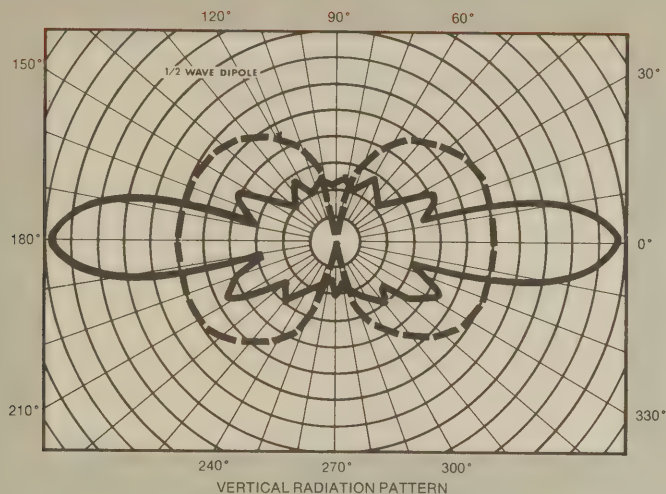
NOTE: Two clamps are required to mount an ASP-701 antenna. (Not furnished)

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

ASP-701



Model ASPR313



5.8 dB GAIN BROADBAND COLLINEAR ANTENNA

Built for the difficult environments, this collinear vertical gain antenna provides omni-directional coverage in the 450-470 MHz radio bands. The installation of a gain antenna in your system is the most economical means of extending range. The 5.8 dB minimum gain greatly improves the effective gain of your system by a factor of 4. The increased gain adds coverage in former fringe areas. One model covers complete frequency range, 450-470 MHz.

Heavy duty construction is used throughout the ASPR313 assuring long life and trouble free service. Radiating elements are weather-sealed in a PVC enclosure. Protection for the base station is assured by direct ground through the antenna support. Vertically polarized, 4 half-wave dipoles fed in phase.

This antenna is supplied with a 6' length of RG-8/U coaxial cable terminated with a constant impedance type "N" male weatherproof connector.

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.

Electrical Specifications

Frequency Range:	450-470 MHz
Gain:	5.8 dB
Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum Power:	250 watts
Lightning Protection:	Direct ground
Bandwidth:	20 MHz
Beamwidth:	14°

Mechanical Specifications

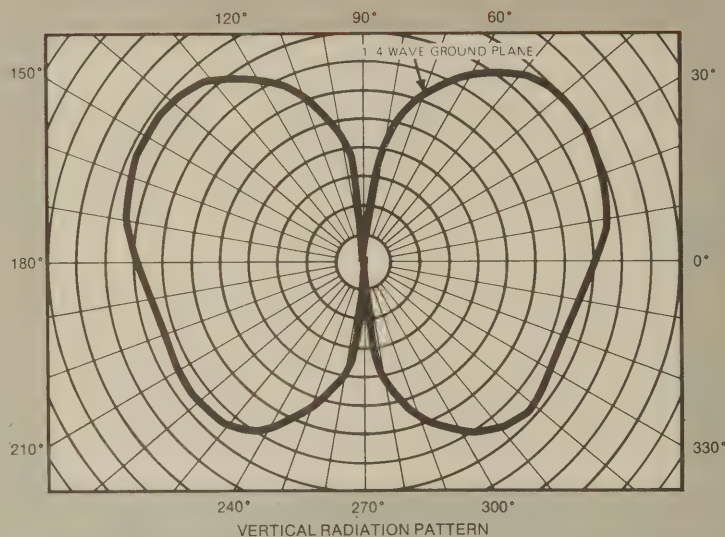
Radiating Element:	2" dia. aluminum dipoles
Support Pipe:	Aluminum 2" dia. pipe (supplied)
Length:	11' 5"
Weight:	16 lbs.
Wind Rating:	100 mph.
Wind Load:	1.88 ft. ²
Termination:	"K-Grip" type "N" male connector
Lateral Thrust:	50 lbs.
Bending Moment:	251 ft.-lb.
Antenna Housing:	Weather protecting PVC (rigid vinyl jacket)



ASPR313



Models ASP-634, ASP-635



GROUND PLANE ANTENNA

This omni-directional, vertically polarized ground plane antenna is designed for general purpose fixed station use. It is sturdily built for long life and trouble-free service. Available with cadmium plated steel elements (ASP-634) for general use or with 3/8" diameter aluminum elements (ASP-635) for rugged environments. The antenna mounts easily on threaded 1 1/4" NPT pipe (not supplied) and is terminated with a UHF receptacle to accept a PL-259 connector. Equipment protection is provided by a built-in gap type arrester.

Full length elements and cutting chart will be supplied if no frequency is specified. May be easily tuned in the field.

Electrical Specifications

Frequency Range:	406-512 MHz
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum RF Power:	1000 watts
Termination:	SO-239 (will accept PL-259 connector)
Lightning Protection:	Built-in gap type arrester

Mechanical Specifications

Support:	1-1/4" NPT threaded pipe (not supplied)
Radiation Element and Radials:	Cadmium plated steel (ASP-634) 3/8" aluminum rod (ASP-635)
Length:	2 ft. at lowest frequency
Weight:	3.0 lbs. (ASP-634) 2.5 lbs. (ASP-635)
Rated Wind Velocity:	100 mph.
Projected Wind Area:	.12 ft. ²

ASP-635

See catalog sections for mounting brackets, coaxial cable, connectors and other materials required for complete installation.



Model ASP-7A

GROUND PLANE ANTENNA

Light duty quarterwave ground plane antenna features chrome plated brass radiator and stainless steel radials. May be installed in just minutes on masts up to 1 1/4" O.D. Low cost, easily mounted, dependable performance. Cutting chart supplied.

Electrical Specifications

Frequency Range:	406-512 MHz
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum RF Power:	100 watts
Termination:	SO-239, will accept PL-259 connector
Lightning Protection:	Built in spark gap arrestor

Mechanical Specifications

Support:	1 1/4" maximum O.D. tubing (not furnished)
Radiating Element:	Chrome plated brass
Radials:	Stainless steel
Length:	26" at lowest frequency
Rated Wind Velocity:	100 mph.



ASP-7A

Models ASP-659, ASPA659, ASPB659, ASPC659

2 dB GAIN COLLINEAR ANTENNA

Exceptional performance at low cost from this gain antenna. 2 dB gain per E.I.A. RS-329 Standard. Same quick mounting as ASP-7A. 5/8 wave collinear stainless steel radiators with encapsulated phasing coil for rugged weatherproof performance. Mounts on mast up to 1 1/4" O.D. Field tuneable with cutting chart supplied. Available in four models to cover 406-420 and 450-512 MHz.

Electrical Specifications

Gain:	2 dB (RS-329) (5 dB-1/4 wave reference)
Frequency Range:	406-420 MHz (ASPA659) 450-470 MHz (ASP-659) 470-494 MHz (ASPB659) 494-512 MHz (ASPC659)
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Maximum RF Power:	100 watts
Termination:	12" RG-58/U with SO-239
Feed Method:	Low loss matching transformer, weatherproof

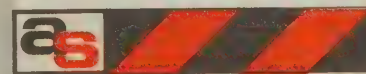
Mechanical Specifications

Support:	1 1/4" maximum O.D. tubing (not furnished)
Radiating Element:	17-7 PH stainless steel, encapsulated with phasing coil
Radials:	Stainless steel
Length:	38" at lowest frequency
Rated Wind Velocity:	100 mph.

NEW



ASP-659



BASE STATION ANTENNAS 406-512 MHz

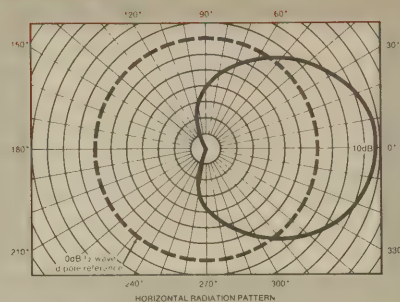
Corner Reflector

Models ASP-604, ASPA604, ASPB604

10 dB GAIN BROADBAND CORNER REFLECTOR

This UHF 90° corner reflector is a rugged antenna providing 10 dB uni-directional gain with a front-to-back ratio of 30 dB. Ideal for point-to-point communications, these models cover 406-420 MHz (ASPA604), 450-470 MHz (ASP-604) and 470-512 MHz (ASPB604) with no tuning necessary.

The reflector features all-welded construction for maximum durability and constant electrical performance. The welded dipole is gamma matched and DC grounded for maximum protection of equipment. May be mounted either vertically or horizontally.



Electrical Specifications

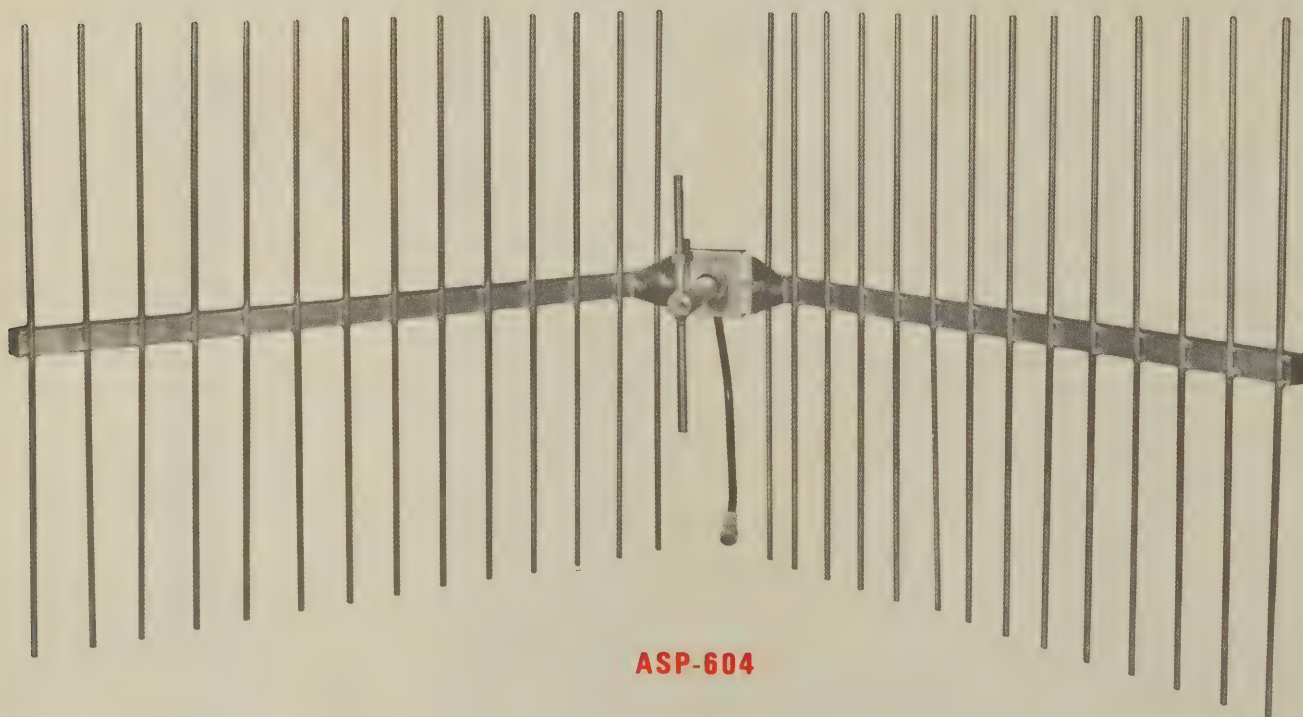
Gain:	10 dB (RS-329)
Frequency Range:	406-420 MHz (ASPA604) 450-470 MHz (ASP-604) 470-512 MHz (ASPB604)
Nominal Input Impedance:	50 ohms
VSWR:	Less than 1.5:1
Bandwidth:	Over 20 MHz
Beamwidth:	44° (ASP-604, ASPB604) 45° (ASPA604)
Maximum RF Power:	250 watts
Termination:	RG-8A/U cable with male type "N" connector
Feed Method:	Gamma Matched
Lightning Protection:	Direct grounded radiator

Mechanical Specifications

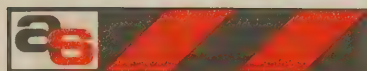
Radiating Elements:	High strength aluminum, welded to feed tube
Reflector:	All-welded aluminum, 2 ft. x 2-1/2 ft. (each half)
Weight:	6 lbs.
Rated Wind Velocity:	100 mph.
Lateral Thrust @100 mph.:	39 lbs.
Torsional Moment @100 mph.:	49 ft.-lbs.
Projected Wind Area:	1.27 ft.
Mounting:	Universal clamp, may be mounted for either vertical or horizontal polarization.



109.50



ASP-604



Model ASP-760

BROADBAND YAGI ANTENNA 10 dB GAIN

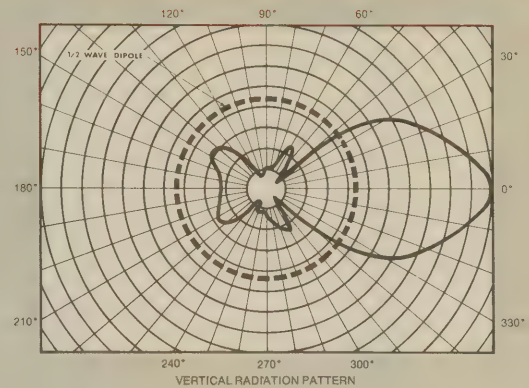
Designed for the ultimate in performance and reliability for repeater and other point-to-point applications, the ASP-760 exhibits 10 dB forward gain with a minimum of 15 dB front-to-back ratio across the entire band. Radiating and parasitic elements are solidly welded to the boom, providing a DC ground as solid as the mounting structure itself. Weatherproof gamma match delivers the low VSWR required to keep UHF losses at a minimum. Solid cast aluminum mounting clamp allows installation for either vertical or horizontal polarization. Gold irridite treated for additional corrosion resistance. Furnished with 24" RG-8A/U cable and male type "N" connector for quick flexible connection to rigid transmission line.

Electrical Specification

<i>Gain:</i>	10 dB
<i>Front-to-back Ratio:</i>	15 dB
<i>Frequency Range:</i>	450-470 MHz
<i>Bandwidth:</i>	20 MHz
<i>Nominal Input Impedance:</i>	50 ohms
<i>VSWR:</i>	Less than 1.5:1
<i>Beamwidth:</i>	46 degrees
<i>Maximum RF Power:</i>	250 watts
<i>Feed Method:</i>	Gamma matched driven element
<i>Lightning Protection:</i>	Direct ground

Mechanical Specifications

<i>Elements:</i>	High strength aluminum alloy - welded to boom
<i>Boom:</i>	High strength aluminum alloy - 1.05 diameter
<i>Weight:</i>	5.6 lbs.
<i>Rated Wind Velocity:</i>	211 mph. @1.65 safety factor (RS-329)
<i>Lateral Thrust:</i>	13 lbs. (100 mph.)
<i>Torsional Moment:</i>	22 ft. lbs. (100 mph.)
<i>Projected Wind Area:</i>	.33 ft. ²
<i>Termination:</i>	24" RG-8A/U with type "N" male connector
<i>Finish:</i>	Gold irridite treated



79.50

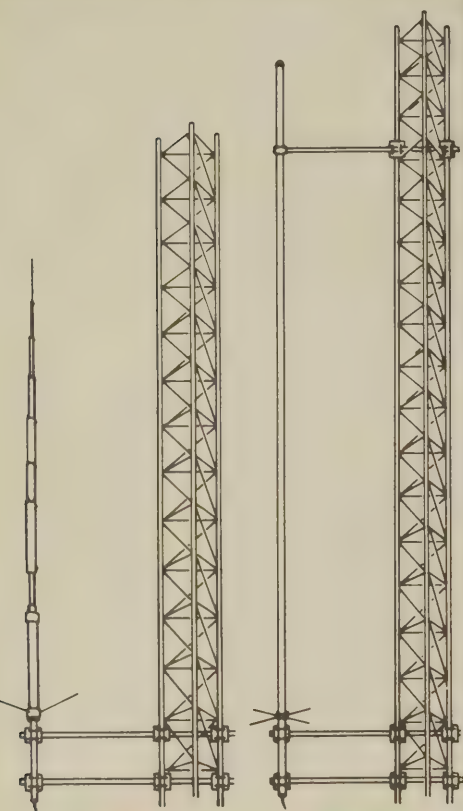
NEW



ASP-760

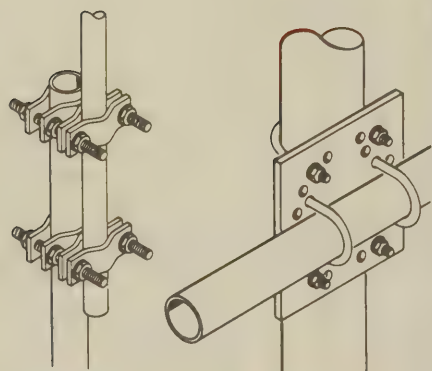
BASE STATION ANTENNAS

Mounting Accessories



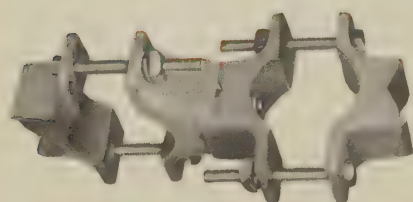
ASP-613

ASP-614
ASP-615



ASP-616

ASP-617



ASPA320

The following products are available as kits to provide the necessary hardware when mounting our base station antennas on towers or a supporting structure.

Model ASP-613

Side tower mounting kit. Two dual standoffs mount antenna up to 36" away from tower. ASP-617 clamps are used. These supports are grounded to the tower. May be mounted on any square or triangular tower with tubular legs up to 2" in diameter and face dimensions from 6" to 25".

Model ASP-614

Side tower mounting kit. Similar to ASP-613 but also includes a fiber glass insulated upper support arm. Standoffs permit mounting antenna from 18" to 7' from tower.

Model ASP-615

Side tower mounting kit. Same as ASP-614 except mounts antenna from 18" to 36" from tower.

Model ASP-616

Clamp set. Consists of two clamps for mounting base station antennas to tower or mast. Will mount on structure from size 1" to 2-7/8" diameter.

Model ASP-617

Cross bar clamp. It is furnished with the required U-Bolts to secure any combination of two intersecting pipes from 1/2" to 2" O.D.

Model ASP-648

Upper insulated side support arm only. Same as furnished with ASP-614 and ASP-615.

Model ASPA320 MOUNTING CLAMP

The ASPA320 mounting clamp permits securing of antenna to wooden pole, tower leg or mast up to 2 3/4" diameter. Special feature allows jaws to be rotated 90° to clamp onto horizontal mounting bars.

Model AVR4 (118-156 MHz) VHF "BROADBAND" BLADE COMMUNICATION ANTENNA

This broadband fiber glass antenna for general aviation use will provide 360 channel operation and reliable improved operation with less deluxe radio gear. Low drag design, constructed with an aluminum radiator encapsulated in rigid light weight polyurethane foam surrounded by a fiber glass housing with integral white coloring. Supplied with a cellular neoprene rubber pad and back-up plate with integral nuts. Connector accepts BNC.

Model AV-529 (118-136 MHz) VHF "BROADBAND" ROD COMMUNICATION ANTENNA

This broadband general aviation antenna is uniquely made of a fiber glass tube in which the radiator is encapsulated. Its "flat" VSWR curve enables it to perform better than many higher price semi-blade antennas. Its smooth, white epoxy finished rod and aluminum die cast base make it a jewel of an antenna. Termination - BNC fitting. Supplied with mounting hardware and weather sealing rubber pad. Weight 8 oz.

Model AVB529 (148-174 MHz)

This unit is identical to the AV-529, except it is designed for the Business Radio Band - (148-174 MHz). It is for general aviation use.

Model AV-12L (108-118 MHz) VOR "PIPER" REPLACEMENT

This newest model VOR antenna uses a highly efficient technique of molding the elements directly into the high impact - thermo - setting bakelite center insulator. This unit has stainless steel elements ground to close tolerances and is designed as a direct replacement on "Piper" airplanes. Its low profile may be used on all general aviation installations. It is supplied with 25 ft. cable and balun.

Model AV-13 (120-124 MHz) LOW PROFILE VEHICULAR ANTENNA

This new low profile (4-5/64" high) antenna is for use on all airport vehicles where durable protected antenna installation is important. The high impact "Radome" cover protects it from the many hazards it may encounter - water, snow, firemen crawling on the trucks, freight handlers and vandals. Also - no vertical whip to damage airplanes or cause a spark discharge. Vertical polarization. Connector - SO-239.

AV-14 (450-470 MHz) LOW PROFILE VEHICULAR ANTENNA

This UHF version of AV-13 is even smaller and easier to mount. Only 3-3/8" high. Can be mounted vertically or horizontally - VSWR 1.5:1 or better. Supplied complete with stainless steel mounting screws and cellular neoprene pad for water proofing and to take up surface irregularities. Ideal for all applications on trucks, buses, tugs, fuel trucks, crash and rescue vehicles and any other similar applications for ground communication. Construction features similar to AV-13, plastic radome and pre-tuned broad band coverage. Vertical polarization. Connector - SO-239.

Model AV-1 (118-136 MHz) DELUXE GROUND PLANE

Heavy duty ground plane vertically polarized antenna for use in communications with ground vehicles or aircraft. This one model covers the band from 118-130 MHz with a VSWR of better than 1.5:1 and 118-136 MHz better than 2.0:1. Heavy duty construction - 3/8" aluminum radials, 1" aluminum tube radiator, 1000 watts maximum power. Withstands 100 mph winds, mounts easily with locking set screws on 1" pipe or 1 1/4" O.D. tubing. Accepts PL-259 connector, irridite treated for durability. Built in gap-type lightning arrestor. No tuning is necessary.

Model AV-2 (118-136 MHz) 3 dB GAIN GROUND VEHICLE ANTENNA

3 dB gain high performance vehicular antenna for use on all surface vehicles around an airport or where communications on aircraft VHF frequency is required. Heavy duty construction, tapered 17-7 PH stainless steel whip and shock spring. Exposed fittings are all triple chrome plated brass or stainless steel. Supplied with 12' cable and fittings. Mounts easily on rooftop, cowl, fender or other suitable location. DC ground for low noise pick up.

AVR4

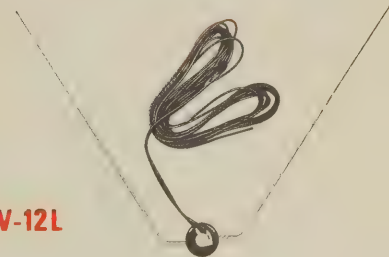


AV-529

AVB529



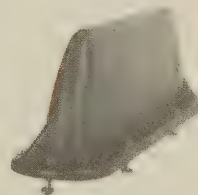
AV-12L



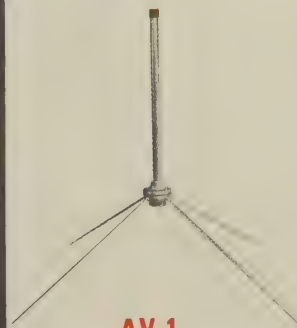
AV-14



AV-13



AV-1

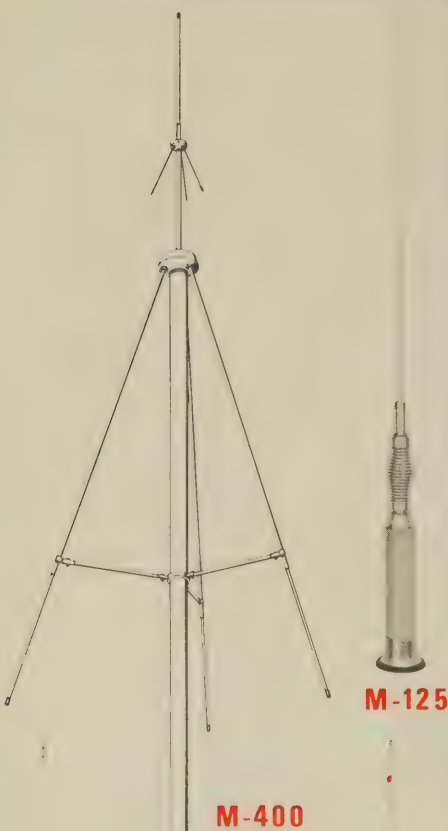


AV-2



CITIZENS BAND ANTENNAS 27 MHz CB

See CB Catalog for Complete Listings



Model M-400

"STARDUSTER"

With 5 dB gain, waterproof feed point and 100 mph + wind rating, the Starduster gives the CB'er the maximum performance in an omni-directional antenna. Mounting is either on 1" pipe or 1-1/4" tubing. Machined fittings and aircraft quality tubing provide long term durability. Very easy to assemble; light weight also makes mounting simple. Unlimited power safety factor. Lowest radiation angle puts the signal where it's needed — on the horizon.

Model M-125

The standard of the industry. Heavy duty, base loaded antenna, only 46" long. Roof top application affords excellent omni-directional signal pattern. May be mounted on any flat surface of car. Weather-proof "snap-in" mount installs quickly in 3/8" hole. Solderless lead connection provides easy installation with no special tools. Stainless steel spring offers special whip protection and professional appearance. Includes 17' of cable and connector. Factory matched to 50 ohms.

Model M-303

The new performance and styling pacesetter of the CB industry. Offers all the famous performance characteristics of our M-125 with class and style never before available. Features gleaming white PVC base loading coil, tapered shock spring and white fiber glass whip. The M-303 has high strength, extreme resistance to corrosion. Only 46" long.

Model M-176

For trunk lip mounting — no hole drilling necessary! Antenna Specialists triple chromed "Quick-Grip" mount installs easily and quickly by means of two small set screws (on underside of trunk lid). May be mounted either at the center or on the side of the trunk lid.

Overall length 46". Easy to install with no special tools. Solderless lead connection at antenna. Complete with 17' RG-58/U and PL-259.

Model M-410

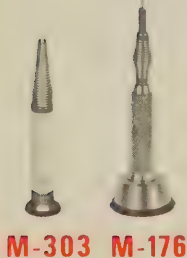
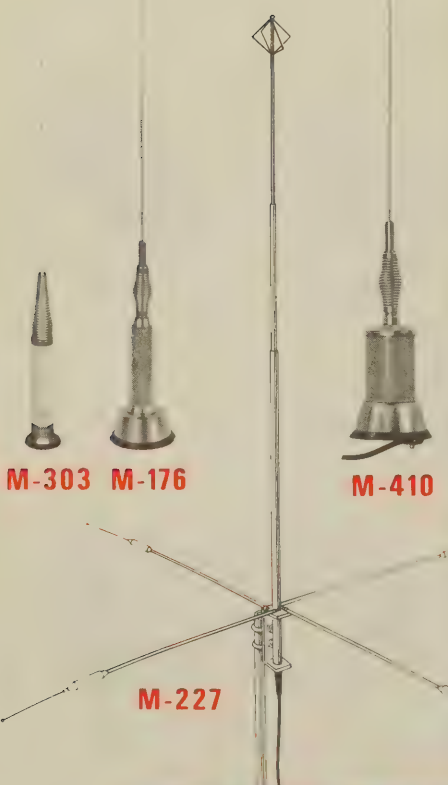
"BIG MOMMA"

A trunk lip mounted, super-rugged CB mobile with an unlimited power safety factor. The stainless steel whip is copper-nickel plated to reduce detuning by temperature rise. The "Quick-Grip" mount provides quick, easy and secure no-hole mounting. Supplied with 17' of cable and connector.

Model M-227

"MIGHTY MAGNUM III"

The best of the Magnum ground planes; the most popular CB antenna series. Each of the Magnums fits a performance and price need. The M-227 has 4 dB gain and with loaded radials provides outstanding performance; it is the finest of the series.



MARINE AND AMATEUR RADIO ANTENNAS

See Corresponding Catalogs for Complete Listings

Marine

Model ASM-37

3 dB GAIN MARINE VHF ANTENNA

Sparkling marine white Armorweave™ fiber glass antenna with encapsulated 1/2 wave radiator. Tapered four foot construction with 1" base diameter and 1"-14 threaded machined brass fitting for mounting on self supporting mount or an extension mast.

Model ASM-38

6 dB GAIN MARINE VHF ANTENNA

Two 1/2 wave phased radiators encapsulated in an exclusive Armorweave™ mast. Collinear 8-1/2 foot design provides 6 dB gain for maximum communications range. Standard 1"-14 threaded base fitting mates with deck mount or extension mast.

Models ASM-55, ASM-56, ASM-79, ASM-87

VHF EXTENSION MASTS

Greatly increase the range of VHF communications by raising the height of the ASM-37 or ASM-38 antennas. Exclusive Armorweave™ construction enhances appearance of installation while anti-rattle cable guide inside mast prevents annoying noise. Available in four length/diameter variations to suit installation requirements.

Model ASM-42

4-WAY RATCHET MOUNT

A "must" for self-supporting antenna installations. Fast-break lever permits quick fold-downs. May be locked at any convenient angle. Nickel-Chrome plated. For installations of up to 14 feet unsupported.

Amateur

Model HM-172

8 ELEMENT 2 METER BEAM ANTENNA

Whether you use a low-powered QRP "lunch-box" rig or the full legal limit, this "4 over 4" yagi offers 10 dB gain and 4 MHz bandwidth for superior performance under any band conditions. Exclusive skeleton slot feed may be fed with standard 50 ohm cable and handles 1 kW continuous power (2 kW PEP).

Model HM-173

16 ELEMENT 2 METER BEAM ANTENNA

This "8 over 8" yagi provides 13 dB gain for that needed extra range. Lightweight, easy to install, may be mounted horizontally for AM and SSB operation or vertically (with accessory vertical mounting kit) for popular FM operation. Broadband design permits QSY anywhere in the band without retuning. Exclusive skeleton slot feed may be fed with standard 50 ohm cable and handles 1 kW continuous power (2 kW PEP).

Model HM-174

16 ELEMENT 3/4 METER BEAM ANTENNA

Exceptional 30 MHz bandwidth with 13 dB gain makes this model popular for both duplex and Amateur TV operation, as well as providing outstanding performance for repeater links and normal communications. Broadband skeleton slot feed allows QSY anywhere in the band without retuning. Will handle up to 1/4 kW (400 watts PEP).



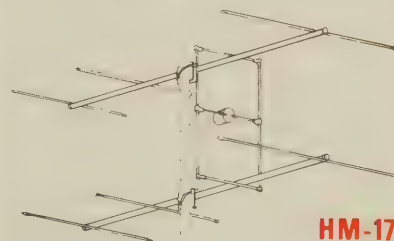
ASM-37

ASM-38

ASM-55



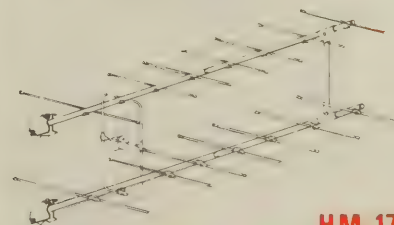
ASM-42



HM-172



HM-173



HM-174



MONITOR ANTENNAS 25-50 and 118-174 MHz

See Monitor Catalog for Complete Listing

MONR6



MON-8



MONR12



MON-13



Model MONR6

COWL MOUNT MOBILE ANTENNA

Combination mobile monitor antenna covers business and public safety band. Stainless steel whip and weatherproof loading coil. Tuned to optimum frequency for broadband coverage. Complete with 5' of RG-58/U cable and pin plug.

Model MON-8

BASE STATION ANTENNA

Exclusive A/S multiple loading coil design for excellent reception on all high and low band professional land mobile and public safety frequencies. No tuning necessary. Designed for extended omnidirectional reception. Impedance matched to 50 ohms with SO-239 connection. No cable furnished.

Model MONR12

GUTTER CLAMP MOBILE MONITOR ANTENNA

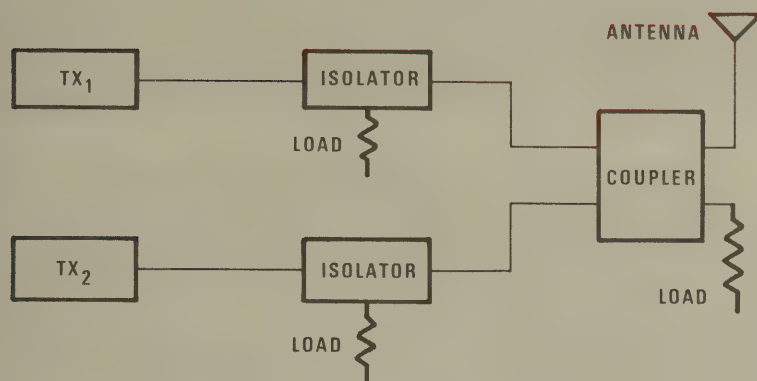
High performance temporary mobile antenna to receive all business and public safety frequencies from 25-174 MHz, including the popular FM broadcast and aircraft bands. Clips easily on to any mobile gutter. Comes complete with 10' lead and pin jack connectors.

Model MON-13

"QUICK GRIP" ALL BAND MOBILE MONITOR ANTENNA

Features A/S exclusive "Quick-Grip" mount for trunk lip installation. No holes to drill. Installs in minutes. Adjusts to specific frequency or covers entire business and public safety bands from 25-174 MHz. Includes 16' lead and pin plug connector.

FERRITE DEVICES



TYPICAL TRANSMITTER COMBINING

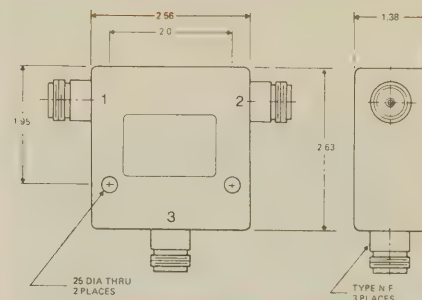
The constantly increasing quantity of new communications systems being installed and limited availability of good geographical antenna locations make consideration of transmitter combining to a single antenna and elimination of transmitter intermodulation products (intermods) extremely important to the system designer, the two-way installer and the user alike.

Antenna Specialists ferrite isolators and associated devices provide the ultimate state-of-the-art solution to these problems. Unlike RF cavities, ferrite isolators provide constant attenuation of all unwanted frequencies and negligible insertion loss - regardless of channel spacing of the unwanted signal!

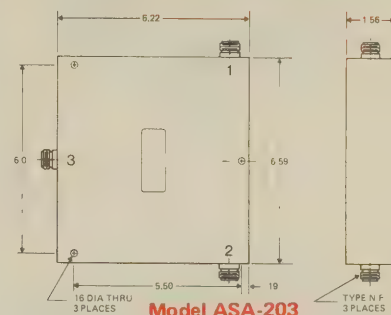
An additional benefit provided by ferrite isolators is a matched load impedance to the transmitter - regardless of antenna VSWR! This offers unprecedented transmitter protection in the event of antenna system failure, whether total or temporary, as in the case of ice build-up on the antenna.

The small physical size of these units allows them to be panel-mounted and installed wherever space is available, even in the transmitter cabinet.

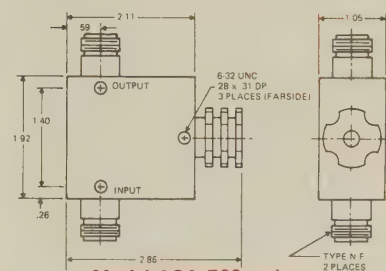
All Dimensions given in inches



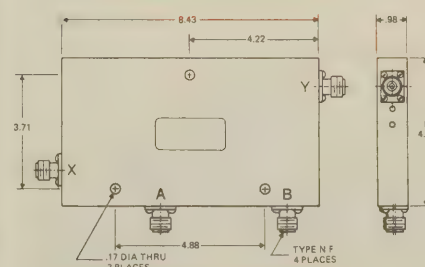
Model ASA-204, ASA-205



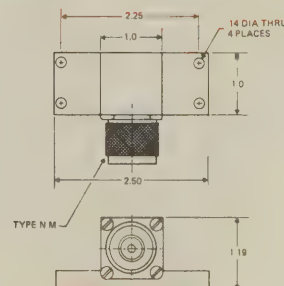
Model ASA-203



Model ASA-500 series



Model ASA-401, ASA-402



Model ASA-601

TRANSMITTER ACCESSORIES VHF-UHF

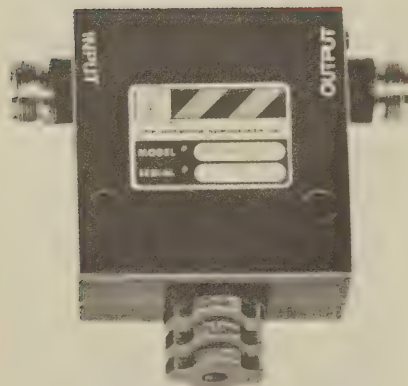
Circulators and Isolators



ASA-204



ASA-203



ASA-501

CIRCULATORS

Models ASA-201, ASA-202, ASA-203, ASA-204, ASA-205

When coupled with the appropriate load (ASA-600 series) these circulators become isolators which allows custom design of intermod elimination or transmitter combining networks.

	ASA-201	ASA-202	ASA-203	ASA-204	ASA-205
Frequency Range -	148-174 (specify exact frequency)	148-174 (specify exact frequency)	148-174 (broad band)	450-470 (broad band)	450-470 (broad band)
Bandwidth (MHz)	3	3	30	20	20
Isolation dB (typ.-min)	26-22	26-22	27-23	27-23	27-23
Insertion loss dB (typ.-max)	.4 - .6	.5 - .6	.3 - .5	.3 - .5	.3 - .5
Power (watts)	50	150	400	100	350
Connectors	type N female	type N female	type N female	type N female	type N female
Size (inches) approx.	1.92 x 2.11 x 1.05	1.92 x 2.11 x 1.05	6.5 x 6.25 x 1.5	2.6 x 2.7 x 1.4	2.6 x 2.7 x 1.4

ISOLATORS

Models ASA-501, ASA-502, ASA-503

Used on single transmitter/antenna systems or as part of transmitter combiner for near total reduction or elimination of intermodulation products. Supplied with integral 20 watt termination (load).

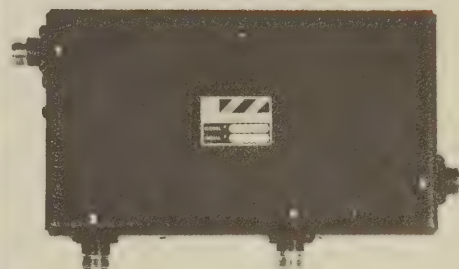
	ASA-501	ASA-502	ASA-503
Frequency Range - (MHz)	148-174 (specify exact frequency)	450-470 (broad-band)	450-470 (broad-band)
Bandwidth (MHz)	3	20	20
Isolation dB (typ.-min)	26-22	27-23	27-23
Insertion loss dB (typ.-max)	.5 - .6	.3 - .5	.3 - .5
Power (watts)	150	100	350
Load port termination power (watts)	20	20	20
Connectors	type N female	type N female	type N female
Size (inches)	1.92 x 2.11 x 1.05	2.6 x 2.7 x 1.4	2.6 x 2.7 x 1.4

HYBRID COUPLERS

Models ASA-401, ASA-402

For combining two signal sources to a common output while providing up to 40 dB isolation between inputs. One antenna may be used with up to eight separate transmitters by using a proper system of isolators and hybrid couplers. Tuneable to provide maximum response of transmitter/antenna system.

	ASA-401	ASA-402
Frequency Range (MHz):	148-174 (tuneable)	450-470 (tuneable)
Isolation Typical (dB):	40	40
Power (combined watts):	500	500
Connectors:	Type "N" female	Type "N" female
Size (inches):	4.75 x 8.44 x 1	4.75 X 8.44 X 1
Maximum Transmitter Frequency Separation:	3 MHz	3 MHz
Insertion Loss (dB):	3	3



ASA-401

CIRCULATOR TERMINATIONS (LOADS)

Models ASA-601, ASA-602, ASA-603, ASA-604

Choice of four terminations for circulators to allow "custom" construction of isolator to fit any particular application. Load must be capable of dissipating all reflected power due to VSWR appearing at output port of isolator.

	ASA-601	ASA-602	ASA-603	ASA-604
Power Rating (watts):	50	150	300	600
Frequency Range (MHz):	0-1000	0-1000	0-1000	0-1000
Nominal Impedance (ohms):	50	50	50	50
Connector:	Type "N" male	Type "N" female	Type "N" female	Type "N" female
Size (inches):	1x1x2.5	4.6x3.5x6.3	7.3x4.7x7.2	available on request



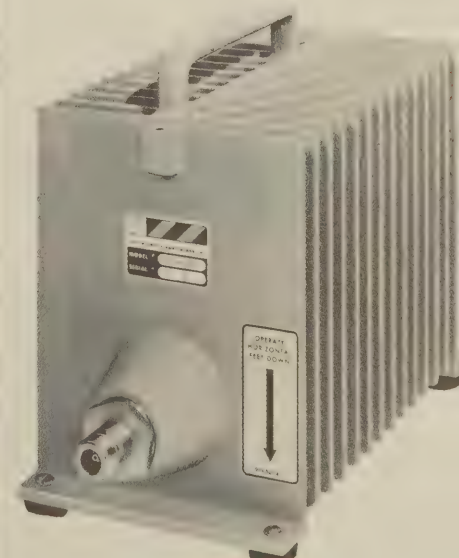
ASA-601

HARMONIC FILTERS

Models ASA-701, ASA-702

Where harmonics of the fundamental transmitter frequency are a problem, these low pass filters provide at least 40 dB stop-band attenuation above the cut-off frequency. (Not illustrated)

	ASA-701	ASA-702
Frequency Range (MHz) Pass-Band:	140-180	400-485
Frequency Range (MHz) Stop-Band:	280-750	800-1600
Bandwidth (MHz):	40	40
Insertion Loss (dB) Maximum Pass-Band:	.2	.2
Insertion Loss (dB) Minimum Stop-Band:	40	40
Power (watts) Continuous:	350	350
Connectors:	Type "N" female	Type "N" female
Size (inches):	6.6 x 1.25 x 1.5	4.85 x 1.25 x 1.5



ASA-603

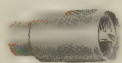
CONNECTORS AND ADAPTERS

CONNECTORS

RG-8



RG-58/U Adapter
14-10-1



PL-259 Male Plug
14-3

BASELINE



Male Plug
14-91



Female Jack
14-92

Type N

RG-8



Male Plug
14-81

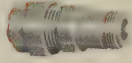


Female Jack
14-12

BASELINE



Male Plug
14-85



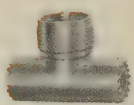
Female Jack
14-86

UHF ADAPTERS



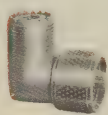
14-97

Straight through adapter.
UHF female both ends.
(PL-258)



14-96

"T" Adapter.
UHF (M-358)



14-103

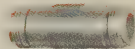
Right angle adapter.
UHF (UG-646/U)



14-4

SO-239 female connector.

TYPE N ADAPTERS



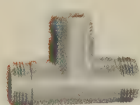
14-100

Straight through adapter.
Type N female both ends.
(UG-29B/U)



14-102

Right angle connector.
Type N (UG-27/U)



14-90

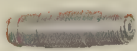
"T" Adapter. Type N
(UG-28A/U)



14-101

Straight through adapter.
Type N male both ends.
(UG-578/U)

CONVERSION ADAPTERS



14-93

Adapter UHF. Female
to Type N female.



14-94

Adapter UHF. Female
to Type N male.



CABLE, LEADS, TRANSMISSION LINE

Cable, Heliax, Connectors and Hardlines

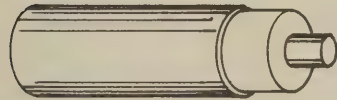
CABLE & HARDLINE



RG-58/U A/S 18A1



RG-58/U A/S 18A2



.500 Baseline K-209

LEAD ASSEMBLY

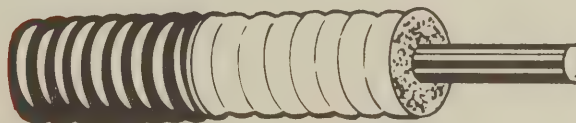
Model	Description
K-195	20 ft. RG-58/U cable with PL-259 on one end only
K-196	5 ft. RG-58/U cable with PL-259 on one end and on PL-259 packed loose
K-197	10 ft. RG-58/U same as K-196
K-198	20 ft. RG-58/U same as K-196
K-199	10 ft. RG-58/U with PL-259 on one end and solder lug and clamp on other end
K-200	50 ft. RG-8/U cable with PL-259's on both ends
K-201	100 ft. RG-8/U same as K-200
K-202	20 ft. RG-58/U same as K-199

HELIAX[®] TRANSMISSION LINE

(order by the foot--local stock lengths 250' & 500' reels)



1/2"



7/8"

K-205 1/2" Unjacketed

K-207 7/8" Unjacketed

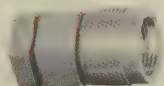
K-206 1/2" Jacketed

K-208 7/8" Jacketed

CONNECTORS AVAILABLE

FOR 1/2" CABLE

UHF



MALE
14-189



FEMALE
14-190

TYPE N



MALE
14-191



FEMALE
14-192

FOR 7/8" CABLE

UHF



MALE
14-193

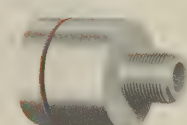


FEMALE
14-194

TYPE N



MALE
14-195



FEMALE
14-196

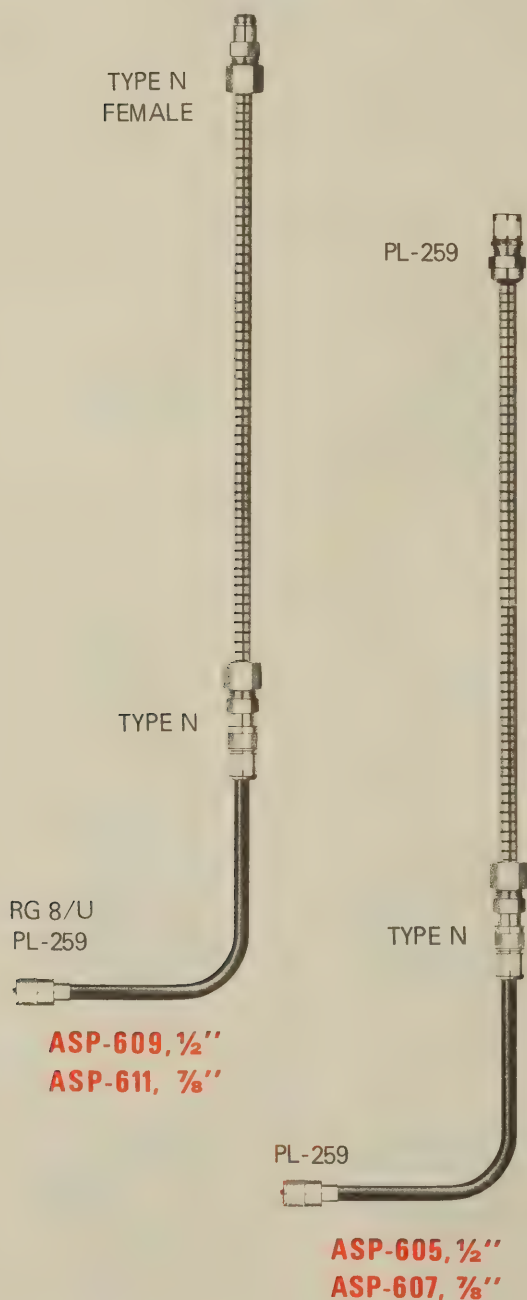
TRANSMISSION LINE KITS

Heliax® Cable

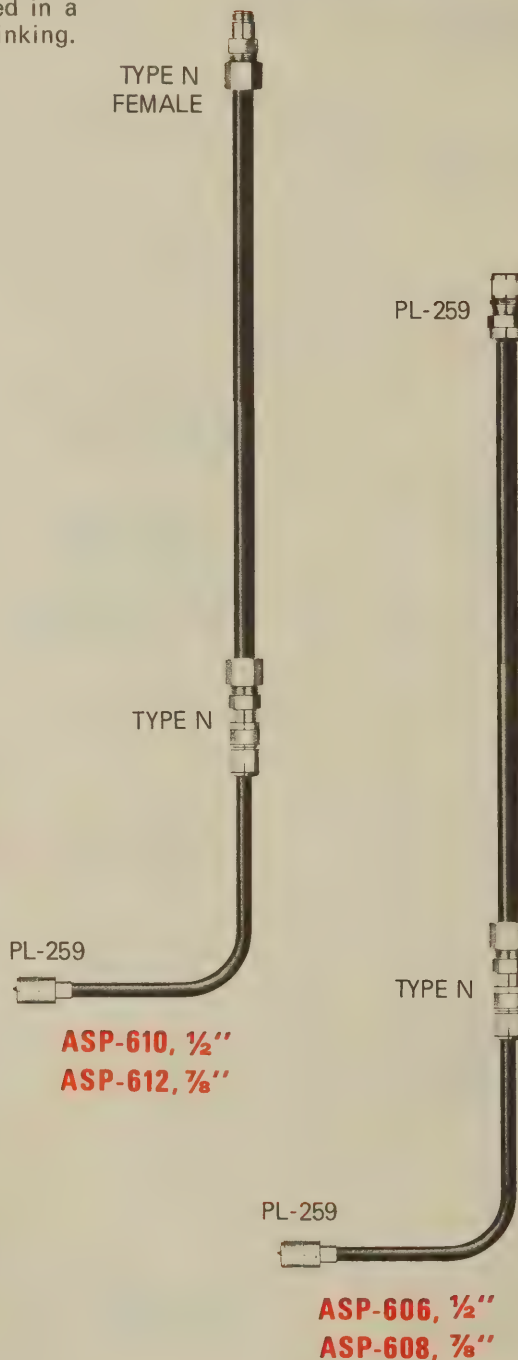
FOAM HELIAX® CABLE WITH FITTINGS AND PIGTAIL

Transmission line kits using low loss Heliax®, a coaxial cable made of a copper center conductor, a foamed polyethylene dielectric and a corrugated copper outer-conductor, with 50 ohms characteristic impedance. This cable is also available with a polyethylene protective coating, recommended if cable is to be buried or used in a corrosive atmosphere. This cable is flexible and resists kinking.

UNJACKETED



JACKETED



Model ASP-143

BUMPER MOUNT

Double chain bumper mount. Consists of assembly of exclusive "Z" shaped links providing easy adjustment to any bumper configuration. Requires only standard open end wrench. Receptacle for spring or whip with phenolic insulators. For use with any spring or whip having 3/8"-24 thread. Entire assembly of alloy steel, cadmium plated.

Model K-38

BUMPER MOUNT

Bumper mount links. Used to increase length of ASP-143 bumper mounts for application to oversize bumpers. Packaged five double links and five triple links per kit.

Model K-63

Replacement insulator assembly for all bumper mounts, chain or strap type.

Model K-203

TRUNK MOUNT

New "Quick-Grip" trunk lid mount requires no holes for easy installation of any antenna base requiring 3/8" hole.

Model K-204

TRUNK MOUNT

New "Quick-Grip" requires no holes for easy installation of any antenna with base loading coil or transformer.

Model K-221

TRUNK MOUNT

Quick-Grip trunk mount with new low profile mount. Accepts ASP-735, ASP-665, ASP-675, ASP-695 or new Motorola antennas. Furnished with 17 ft. RG-58/U cable and connector.

Model K-36

Coaxial adapter kit - easily converts exposed terminals of swivel bases for coaxial adapter use.

Model ASP-332

GUTTER MOUNT

Gutter clamp with SO-239 connector. Accommodates any antenna that will mount on an SO-239 to provide temporary mobile application.

Model ASPR332

GUTTER MOUNT

Gutter clamp with new low profile mount. Accepts new A/S low profile antennas or new Motorola antenna. Furnished with 10 ft. RG-58/U cable and connector.

Model ASP-618

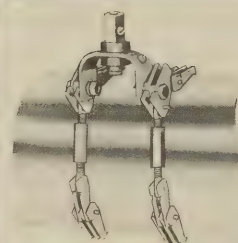
COUPLER

Combination AM/FM low band, mobile, 2 way radio coupler. (For use with ungrounded antenna). Frequency range 25-50 MHz. AM/FM, connector will accept auto pin plug. Furnished with 24" cable with auto pin plug on both ends. Power over 100 watts, insertion loss less than 1 dB.

Model ASP-619

COUPLER

Combination AM/FM hi-band, mobile 2 way radio coupler. Similar to ASP-618 except for use on 148-174 MHz. Power over 100 watts, insertion loss less than 1 dB.



ASP-143



K-38



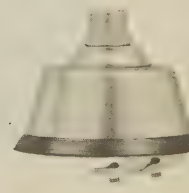
K-63



K-203



K-221



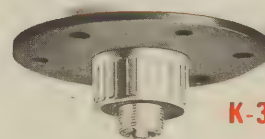
K-204



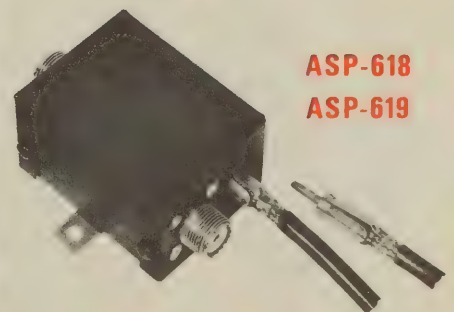
ASP-332



ASPR332



K-36



ASP-618

ASP-619

MOBILE ANTENNAS

Accessories and Mounts

Model K-115

Handy clip for quick-action fastening down of long whips during inoperative periods. Attach with single screw to gutter; no holes in vehicle. Durable plastic hold down.

Model ASPS202

Antenna mount adapter. Converts antenna models ASP-452, ASP-268, ASPS177 and many other Antenna Specialists models for use with GENERAL ELECTRIC or ASP-201 type mounts. (3/8" snap in)

Model ASPS205

Antenna mount adapter. Converts antenna models ASP-452, ASP-268, ASPS177 and other Antenna Specialists models for use with pre-1968 MOTOROLA mounts.

Model ASP-526

High quality shock spring especially designed for high-vibration motorcycle use. Stainless steel, chrome plated. 1/4"-20 threads.

Model K-27

MOTOROLA conversion adapter. Converts new-type Motorola rooftop mount to accept any standard Antenna Specialists rooftop transformer.

Model K-66

Replacement 3/4" hole mount and cable assembly for new Antenna Specialists "low profile" antennas. Furnished with 17 ft. RG-58U cable and spanner wrench for quick installation. (ASP-660's, ASP-670's, ASP-690's, ASP-730's)

Model K-67

Ground plane kit for fiber glass bodied vehicles. Complete with instructions and sufficient adhesive-backed foil for one low band or six VHF and UHF ground planes. Includes metal clips for circuit continuity.

Model K-68

Conversion adapter to adapt existing 3/8" snap-in mount (ASP-201, etc.) to accept new Antenna Specialists low profile mount antennas. (ASP-665's, ASP-675, ASP-695)

K-115

ASPS202

ASPS205

ASP-526

K-27

K-66

NEW

NEW

K-68

K-67

Model K-69

CONVERSION KIT

Conversion adapter to convert existing A/S 3/4" hole mount or cowl mount for coils to accept new low profile mount antennas.

Model K-70

CONVERSION KIT

Conversion adapter to convert existing ASPR1 quarterwave to new low profile mount gain antennas.

Model K-72

COWL MOUNT KIT

Replacement cowl mount for new low profile mount antennas. Furnished with 17 ft. RG-58/U cable and connector.

Model K-220

MAGNET MOUNT KIT

Magnet mount kit for new A/S low profile mount antennas. Provides quick temporary mount for gain antennas (ASP-665, ASP-675) etc.). Furnished with 17 ft. RG-58/U cable and connector.

Model K-221

QUICK-GRIP TRUNK MOUNT

Quick-Grip trunk mount kit with new low profile mount. Accepts ASP-665, ASP-675, ASP-695, ASP-735, or new Motorola antennas. Furnished with 17 ft. RG-58/U cable and connector.

Model K-193

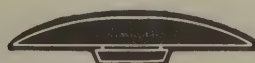
SWIVEL ADAPTER

Swivel adapter allows for vertical positioning of whip on loaded antennas where mounting location will not permit. Provides adjustment range of 90 degrees.

RUBBER PLUGS

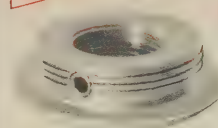
For covering holes from which antenna has been removed. May be inserted from outside of car body.

Model No.	Diameter	Hole Size
K-34	3 3/4"	1 1/8"
K-35	1 1/2"	3/4"
K-37	1 1/4"	3/8"
K-39	1 1/2"	7/8"



NEW

K-69



NEW

K-70



NEW



K-72

K-220

NEW



NEW



K-221

K-193



MOBILE ANTENNAS

Components and Parts

1/4 WAVE WHIPS FOR ROOFTOP MOUNT

130-470 MHz ASPC201, ASP-201

Model K-42

Whip and set screw adapter for 1/4 wave rooftop antennas. 23 1/4" whip. Type 302 stainless steel untapered rod. Furnished with Allen wrench and cutting chart. For use as replacement on the following models: ASP-201 series and ASP-541.

(for whip only, order 19-440-8)



Model K-51

Tapered whip and ball, and set screw for 1/4 wave rooftop antennas. 23 1/4", 17-7PH stainless steel whip complete with Allen wrench and cutting chart. For use on ASP-201 series and ASP-541.



19A323
Press-On
Whip
Assembly
(ASP-201)



Model K-43

Set screw adapter for 1/4 wave rooftop antennas. Furnished with Allen wrench. For use on ASP-201 series and ASP-541.



SILVERED WHIP

130-170 MHz

Model K-31

Silver whip conversion kit to convert ASPS-177 series antenna to meet specifications for the ASPS-577 series. Plastic coated, silvered whip. Cutting chart included.



GAIN MOBILE ANTENNAS

(ASP-406 AND ASP-461 SERIES)

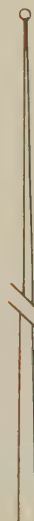
450-470 MHz

BASE LOADED MOBILE ANTENNAS

25-50 MHz

Model K-41

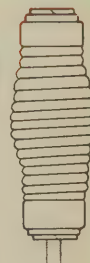
49" whip and ball for high band gain and low band loaded antennas. Cutting chart included. For replacement on the following series:



ASPS177	ASP-446
ASPS200	ASP-447
ASP-203	ASP-448
ASP-204	ASP-452
ASP-268	ASP-544
ASP-324	ASP-552
ASP-331	ASP-555
ASP-358	ASP-591
ASP-415	ASP-598
ASP-441	ASP-629
ASP-444	

Model K-126

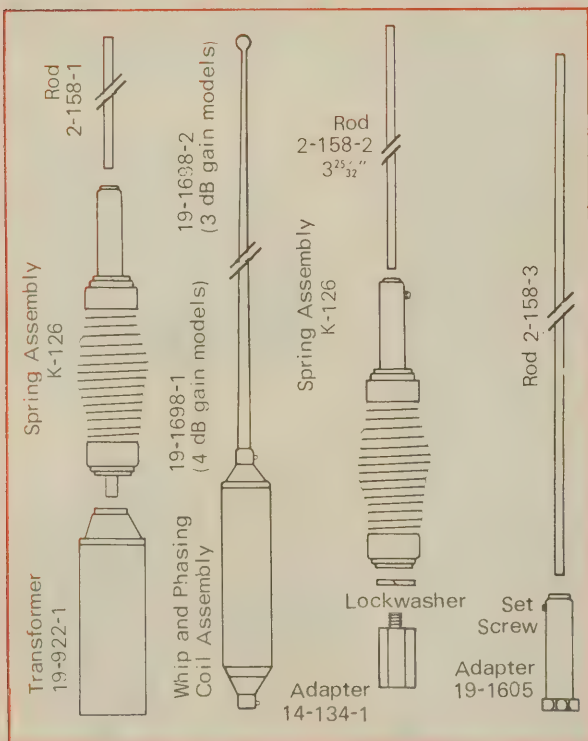
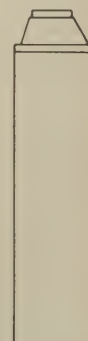
Spring
Assembly



Model K-46

Coil assembly for low band loaded antennas, for use with the following models:

ASP-268 Series
ASP-341 Series
ASP-342 Series
ASP-444 Series
ASP-447 Series
ASP-448 Series
ASP-452 Series
ASP-544 Series
ASP-552 Series
K-46 (30-36 MHz)
KA46 (36-42 MHz)
KB46 (42-50 MHz)
KC46 (25-28 MHz)



MOBILE GAIN ANTENNAS 130-174 MHz

Model K-48

Transformer for high band gain antennas. For models:



ASPS177
ASP-200
ASPS203
ASPS206
ASP-324
ASP-358
ASP-415
ASP-446
ASP-543

ASP-553
ASP-558
ASPS577
ASPS578
ASPS584
ASPS586
ASP-596
ASR-597

Model K-126



Standard Spring
(Includes K-50 Adaptor)

Model K-50

Whip adapter for high band gain and low band loaded antennas. Furnished with set screws and Allen wrench. For use on the following models:

ASPS177	ASP-444
ASPS203	ASP-446
ASP S206	ASP-447
ASP-268	ASP-448
ASPA375	ASP-452
ASP-406	ASP-552
ASP-407	ASP-553
ASP-408	ASP-554
ASP-413	ASPS598

and others using .100" diameter whips.



STANDARD MOUNTS

Model K-47

Cowl Mount only for use with loaded antennas. For use with:
ASP-579 ASP-415



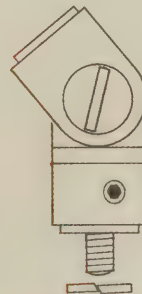
Model K-66

Replacement 3/4" hole mount and cable assembly for new A/S low profile antennas. Furnished with 17 ft. RG-58/U cable and spanner wrench for quick installation.



Model K-193

Swivel adapter allows for vertical positioning of whip on loaded antennas where mounting location will not permit. Provides adjustment range of 90 degrees.



Model K-57

3/8" Snap Mount Complete

Model K-62

Adapter

Model K-45

Snap adapter

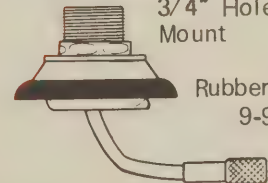
Rubber Pad 9-9



Model K-49

3/4" Hole Mount

Rubber Pad 9-9



Model K-44

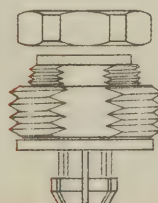
Complete 3/8" hole snap-in mount for 1/4 wave rooftops. For models in the following series:

ASP-201	ASP-448
ASP-413	ASP-462
ASP-446	ASP-464
ASP-447	ASPS578



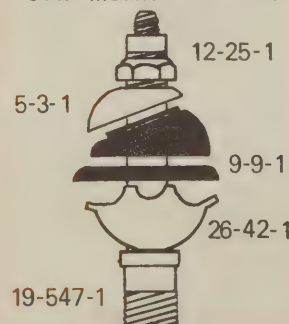
Model K-45

Replacement 3/8" hole snap-in mount adapter only for 1/4 wave rooftops - same as K-44, less insulator. See K-44 for model useage.



Disguise Mount

Cowl Mount — 19-2279



Model K-56

Trunk Groove Mount



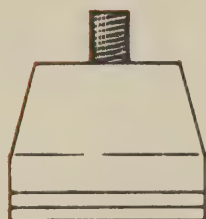
MOBILE ANTENNAS

Components and Parts

Model ASP-670 Series

3 dB Gain Low Profile VHF 144-174 MHz

19-2191-2



BASE AND COIL
ASSEMBLY

19-2156-3



SPRING

Model K-31

49" REPLACEMENT
WHIP

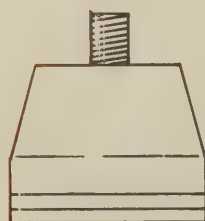
Silver-plated
Plastic Coated



Model ASP-660 Series

Low Profile UHF 406-512 MHz

19-2191-1 450-470 MHz
19-2191-3 406-420 MHz
19-2191-4 470-494 MHz
19-2191-5 494-512 MHz



BASE AND COIL
ASSEMBLY

19-2156-2



SPRING

19-2194-1 450-470 MHz
19-2194-2 470-494 MHz
19-2194-3 494-512 MHz
19-2194-4 406-420 MHz

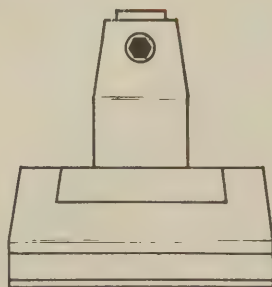
WHIP AND PHASING
COIL ASSEMBLY



Model ASP-690 Series

Low Profile 1/4 Wave

19-440-6
REPLACEMENT WHIP



19-2278-1
BASE AND
WHIP ADAPTER

Motorcycle Antennas

25-50 MHz
ASP-720 Series
ASP-721 Series
LOADING COIL

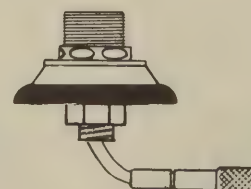


19-1059-32 25-29 MHz
19-1059-33 30-33 MHz
19-1059-34 33-36 MHz
19-1059-35 36-42 MHz
19-1059-36 42-50 MHz

WHIP AND SPRING
ASSEMBLY
19-2335-1 (white)
19-2335-2 (orange)



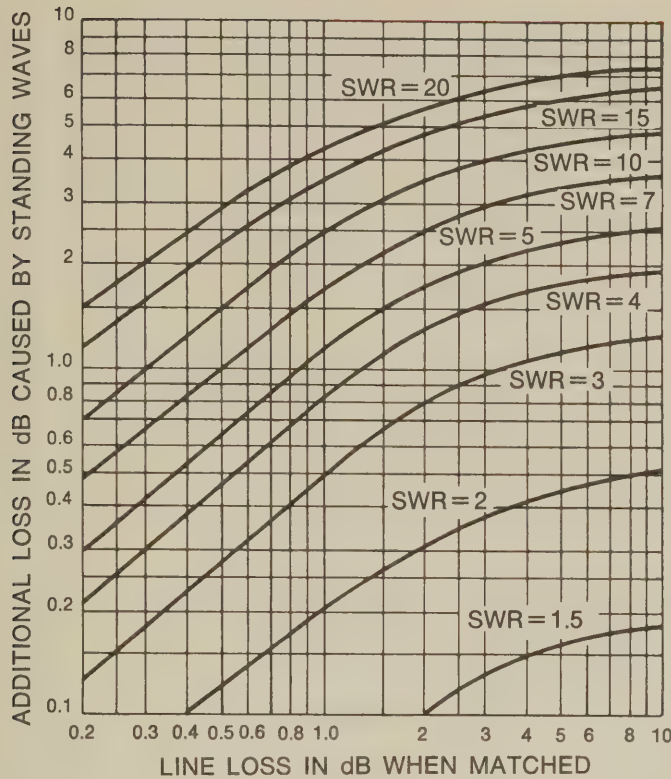
144-174 MHz
ASP-723
ASP-724
TRANSFORMER



19-1288-2
SPECIAL MOTORCYCLE
MOUNT

19-1092-14

TRANSMISSION LINE AND CONNECTION LOSSES

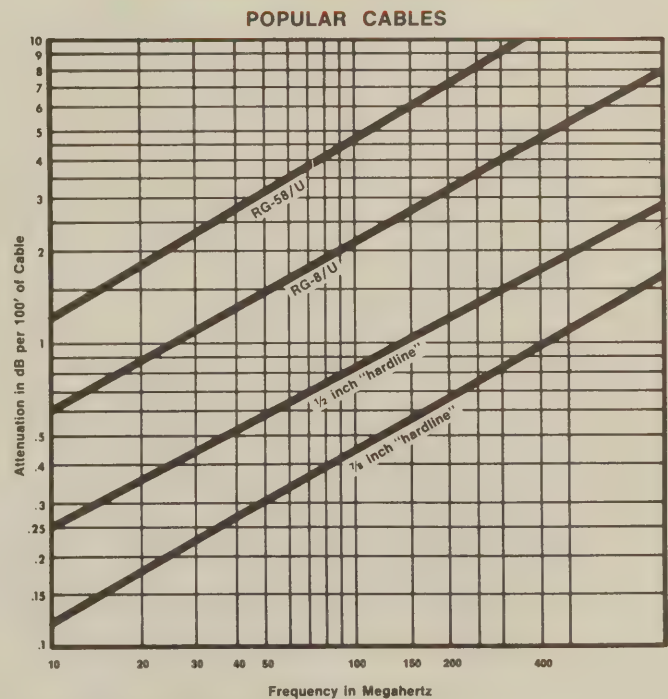


Percent of Power Loss	VSWR	Percent of Effective Radiated Power
.0	1.0:1	100.0
.3	1.1:1	99.7
.8	1.2:1	99.2
1.7	1.3:1	98.3
2.7	1.4:1	97.3
5.0	1.6:1	95.0
8.0	1.8:1	92.0
11.0	2.0:1	89.0
14.0	2.2:1	86.0
17.0	2.4:1	83.0
20.0	2.6:1	80.0

Losses must be kept at a minimum to assure the best possible system operation for costs involved. Some losses are caused by the reflection of power back toward the transmitter, expressed as Voltage Standing Wave Ratio, or VSWR. These reflection losses are kept at a minimum by making sure that the impedance of the transmitter, transmission line, connectors and the antenna are closely matched. Values of less than 1.5 to 1 are normal and acceptable for good system performance.

The above chart shows the additional losses created by impedance mismatch between the antenna and the transmission line, in short, this chart is used to determine the additional decreases in efficiency created by standing waves in an antenna system. For example, if the line loss of a system is 3 dB (select from the horizontal coordinator) and the VSWR is 2.0:1 (select the SWR-2 plot), this 3 dB line loss, when coupled with a VSWR of 2.1:1 produces an additional loss of 0.38 dB. The total antenna system loss is 3.38 dB.

ATTENUATION FACTORS



GENERAL INFORMATION

Side Mounted Antenna Patterns

SIDE MOUNTED OMNI-DIRECTIONAL BASE STATION ANTENNA GUIDE

Omni-directional antennas, when mounted on the side of a tower, do not provide an omni-directional radiation pattern, since the tower itself becomes a part of the antenna system by acting as a passive reflector. This effect causes an irregular pattern whose shape varies with spacing from the tower and tower size and shape.

This may be a blessing in disguise since it then becomes practical to plan a semi-directional system, while utilizing an omni-directional antenna, by predicting pattern shape. And -- the directivity provided by side mounting permits the system designer to use a less expensive unity gain omni-directional antenna to provide a directional gain pattern.

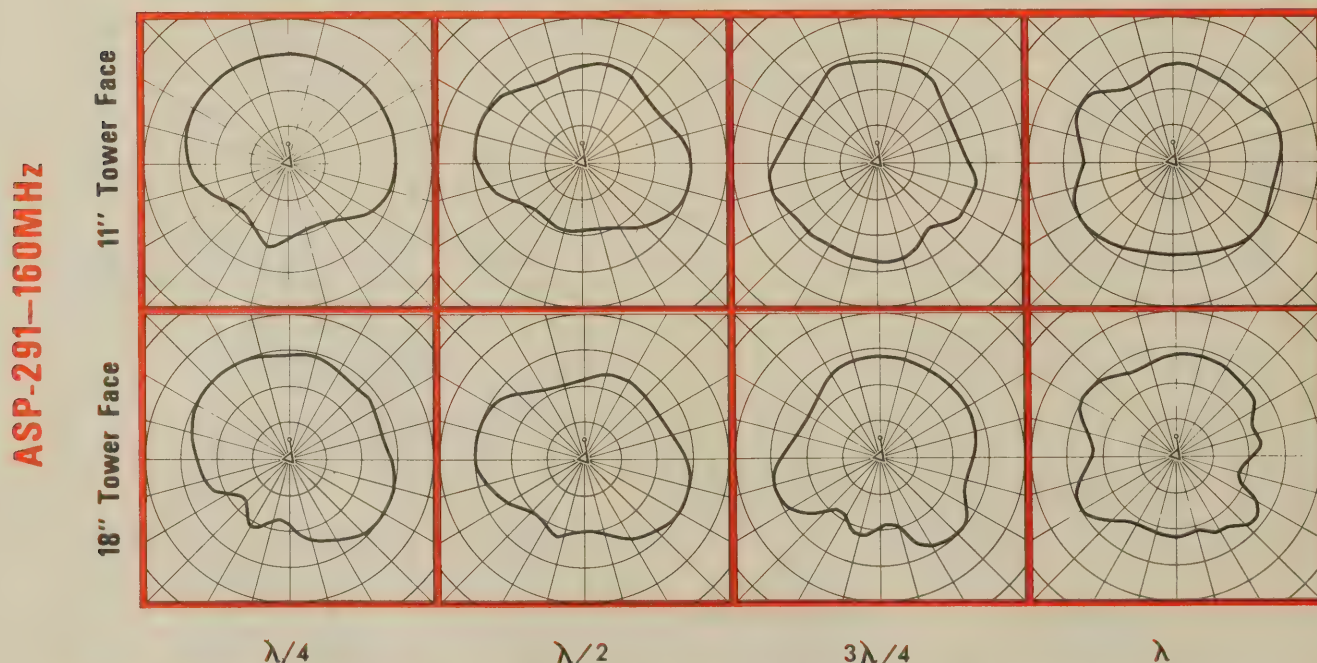
Generally speaking, a unidirectional pattern with a broad beamwidth is achieved by spacing the antenna $1/4$ wavelength from the tower while a bi-directional "broadside" pattern is provided by $1/2$ wavelength spacing.

Previously published patterns have assumed that the mounting structure is a solid, cylindrical mast. Since the majority of installations of this type are made on triangular tower, Antenna Specialists developed the following patterns by utilizing various tower sizes, and by rotating the entire tower while recording the data on a slave polar chart recorder. We at Antenna Specialists feel this type of data is invaluable to the systems designer and installer alike, since it more closely represents the actual radiation pattern to be expected -- not a mathematical prediction. Although these patterns are of specific antenna models, they may be applied with fair accuracy to other antennas of the same general type in the same frequency range.

To assist in converting wavelengths into feet and inches for mounting, the following chart is provided. We do not recommend mounting the antenna closer than $1/4$ wavelength because severe detuning of the antenna could result.

Freq. MHz	WAVE LENGTH INCREMENTS					
	$1/4$ wave	$1/2$ wave	$3/4$ wave	1 wave	$1\frac{1}{2}$ waves	2 waves
30	8' $2\frac{3}{8}$ "	16' 5"	24' 7"	32' 10"	49' 3"	65' 8"
50	4' 11"	9' 10"	14' 9"	19' 8"	29' 6"	39' 4"
160	1' $6\frac{1}{4}$ "	3' 1"	4' $7\frac{3}{8}$ "	6' 2"	9' 3"	12' 4"
460	$6\frac{1}{4}$ "	1' $\frac{7}{8}$ "	7' $7\frac{1}{2}$ "	2' $1\frac{1}{4}$ "	3' $2\frac{3}{8}$ "	4' $3\frac{1}{2}$ "

FIELD STRENGTH PATTERNS OF NORMALLY OMNI-DIRECTIONAL ANTENNAS SIDE-MOUNTED AT VARIOUS DISTANCES FROM SEVERAL SIZE SUPPORTING STRUCTURES

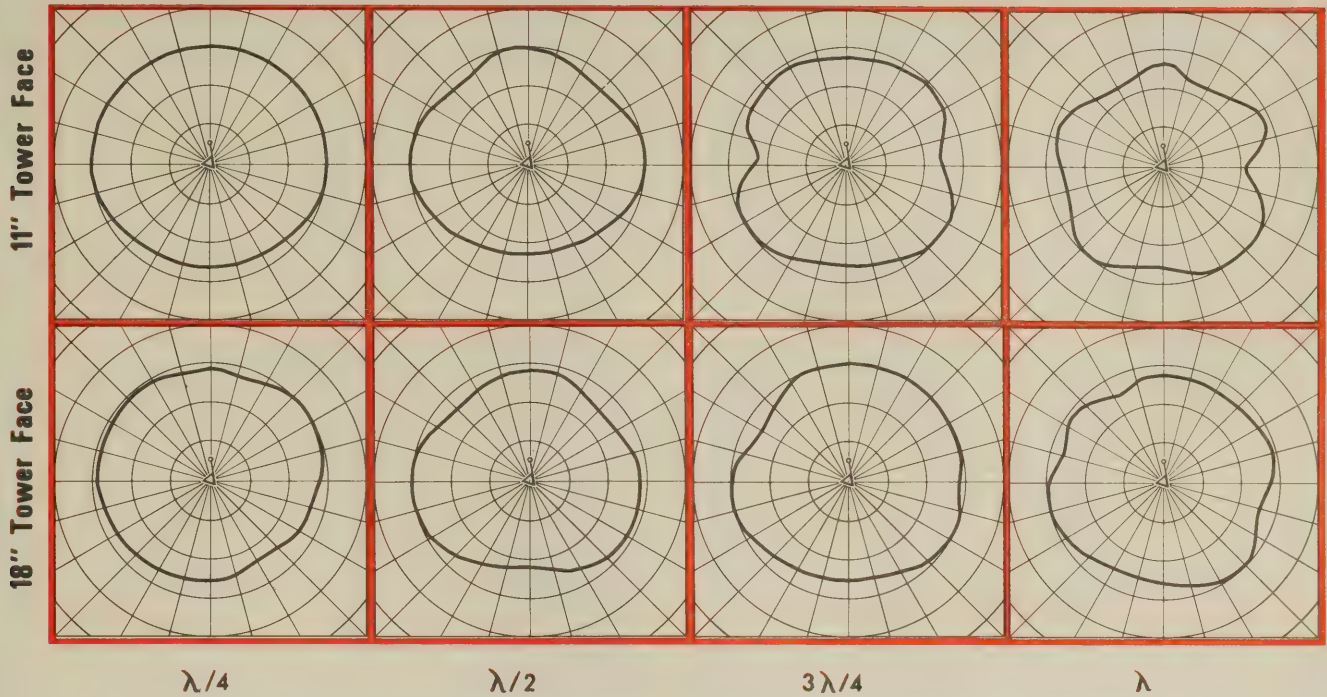


SPACING BETWEEN ANTENNA AND NEAREST SURFACE
OF SUPPORTING STRUCTURE IN WAVELENGTHS

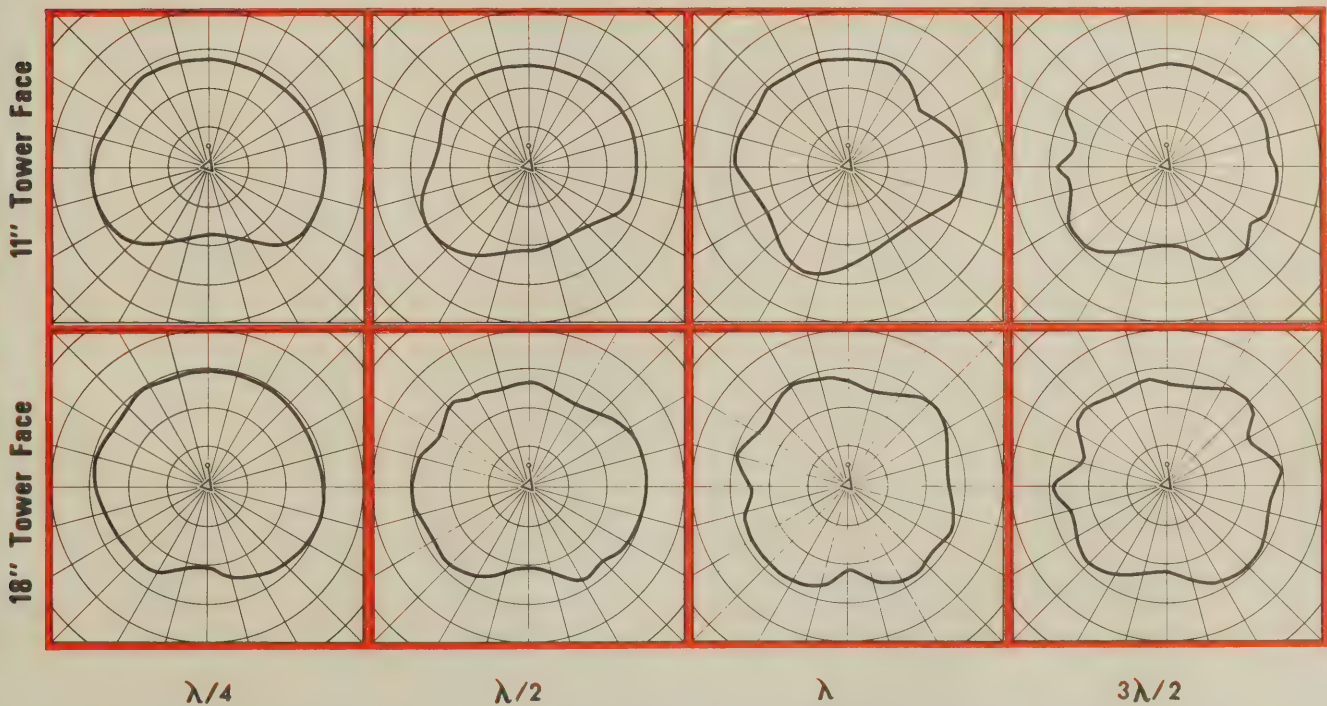
GENERAL INFORMATION

Side Mounted Antenna Patterns

ASP-298-160 MHz



ASPR313-460MHz

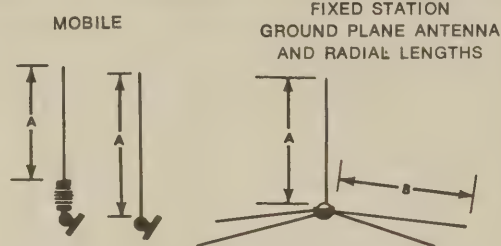


**SPACING BETWEEN ANTENNA AND NEAREST SURFACE
OF SUPPORTING STRUCTURE IN WAVELENGTHS**

GENERAL INFORMATION

Element Cutting Charts 1/4 Wave

26 to 54 MHz

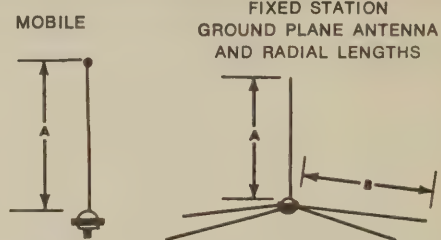


Frequency In MHz	Whip Length (A) *	Radiator Length (A)	Radial Length (B)
26	108"	108"	108"
27	108"	105"	108"
28	106"	103"	107"
29	103"	98"	103"
30	98"	95"	100"
31	95"	93"	98"
32	92"	90"	95"
33	90"	88"	91"
34	87"	85"	89"
35	84"	83"	87"
36	82"	81"	85"
37	80"	79"	83"
38	78"	78"	81"
39	76"	75"	79"
40	74"	73"	77"
41	72"	72"	76"
42	70"	70"	74"
43	68"	69"	72"
44	67"	67"	70"
45	65"	65"	68"
46	64.5"	64"	67"
47	63.5"	63"	66"
48	61.5"	61"	64"
49	59"	60"	63"
50	57"	58"	61"
51	55"	58"	61"
52	54"	54"	57"
53	54"	54"	57"
54	53.5"	54"	57"

★ Subtract 6 inches from whip length if spring is included.

Lengths given are approximate. For more accurate "pruning", use an inline watt meter and adjust whip length for best VSWR.

108 to 470 MHz



Frequency In MHz	Whip Length (A)	Radiator Length (A)	Radial Length (B)
108	26 "	25 "	26½"
110	25½"	24½"	25¾"
112	25 "	23⅞"	25⅞"
114	24½"	23⅞"	24⅞"
116	24 "	22⅞"	24⅞"
118	23½"	22½"	23¾"
120	23 "	21¾"	23 "
122	22½"	21⅞"	22¾"
124	22 "	21⅞"	22⅞"
126	21¾"	20¾"	22⅞"
128	21½"	20⅞"	22⅞"
130	21¼"	20 "	21⅞"
132	21 "	19⅞"	21 "
134	20½"	19¼"	20⅞"
136	20 "	19⅞"	20⅞"
138	19¾"	18⅞"	20⅞"
140	19½"	18⅞"	19⅞"
142	19 "	18¼"	19⅞"
144	18¾"	17¾"	19¼"
146	18¼"	17⅞"	19 "
148	18 "	17½"	18¾"
150	17¾"	17⅞"	18½"
152	17½"	17⅞"	18¼"
154	17 "	16¾"	17⅞"
156	16¾"	16½"	17⅞"
158	16½"	16¼"	17⅞"
160	16¼"	16 "	17⅞"
162	16 "	15¾"	16¾"
164	15¾"	15⅞"	16⅞"
166	15½"	15½"	16½"
168	15¼"	15⅞"	16⅞"
170	15¼"	15⅞"	16⅞"
172	15 "	15 "	16 "
174	15 "	14⅞"	15⅞"
406-420	6 "	5 "	6½"
420-450	5⅞"	4¾"	6 "
450-460	5¼"	4⅞"	6 "
460-470	5 "	4¼"	6 "
470-488	4¼"	4 "	5½"
488-512	4½"	3⅞"	5½"



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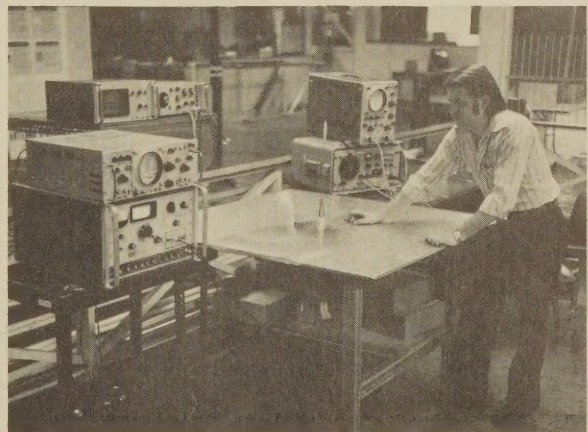
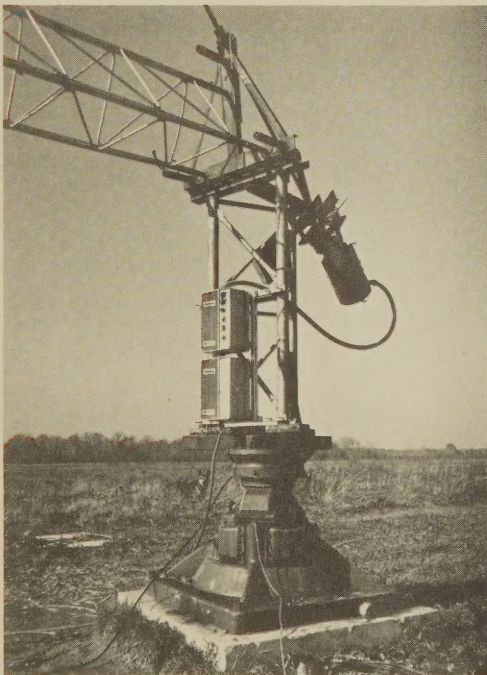
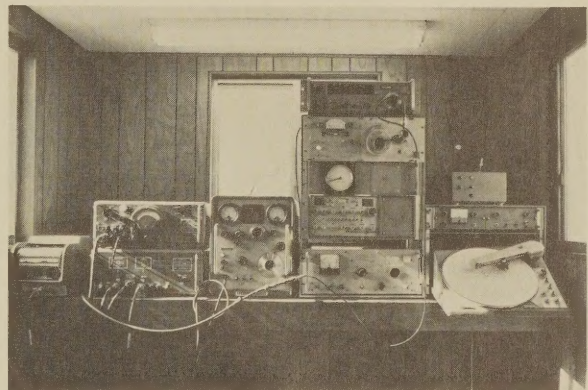
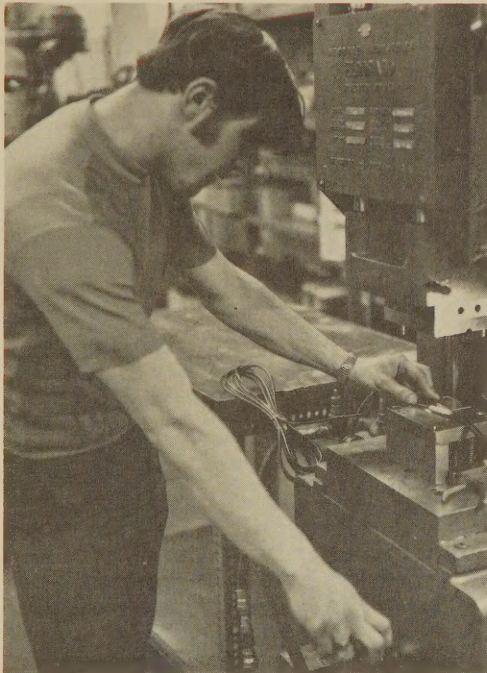
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